

Olerup SSP[®] HLA-A*24

Product number:	101.422-24/03 – including <i>Taq</i> pol.
Lot number:	63E
Expiry date:	2010-June-01
Number of tests:	24 tests – Product No. 101.422-24 3 tests – Product No. 101.422-03
Number of wells per test:	76
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 63E.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*[®] HLA-A*24 LOT

The HLA-A*24 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP*[®] HLA-A*24 lot was made (Lot No. X96).

Twenty-eight wells have been added to the HLA-A*24 kit, wells **49 to 76**.

The primers of the wells detailed below have been exchanged, added or modified compared to the previous lot.

Well	5'-primer	3'-primer	Rationale
3	-	Modified	Primer modified for increased specificity.
6	Added	-	Primer added for increased yield of specific PCR product.
12	-	-	Changed to the 1070 bp internal control primer pair.
14	-	Modified	Primer modified for increased specificity.
16	Modified	Removed	Primer modified for increased specificity. Primer pair moved to vial 49.
21	Removed	Removed	Primer pair moved to vial 62.
22	Removed	Removed	Primer pair moved to vial 56.
23	Removed	Removed	Primer pair moved to vial 62.
24	Removed	Removed	Primer pairs moved to vials 55 and 63.
26	Removed	Removed	Primer pairs moved to vials 50 and 68.
28	Removed	Removed	Primer pairs moved to vials 63 and 66.
29	Removed	Removed	Primer pair moved to vial 52.
30	-	Removed	Primer pair moved to vial 61.

31	-	Removed	Primer pairs moved to vials 54 and 66.
32	Removed	Removed	Primer pairs moved to vials 51 and 67.
33	-	Removed	Primer pair moved to vial 61.
34	Removed	Removed	Primer pair moved to vial 65.
35	Removed	Removed	Primer pair moved to vial 52.
36	Removed	-	Primer pair moved to vial 64.
37	-	Removed	Primer pair moved to vial 59.
38	Removed	Removed	Primer pair moved to vial 65.
39	Removed	Removed	Primer pair moved to vial 59.
40	-	Modified, removed	Primer improved for increased yield of specific PCR product. Primer pairs moved to vial 56 and 60.
42	-	Removed	Primer pair moved to vial 54.
43	Removed	Removed	Primer pair moved to vial 60.
44	Removed	-	Primer pair moved to vial 58.
45	Modified, removed	Removed	Primers modified for increased specificity. Primer pair moved to vial 67.
46	Removed	Removed	Primer pairs moved to vial 57 and 64.
47	Modified, removed	Removed	Primer modified for increased specificity. Primer pairs moved to vial 49, 53 and 68.
48	Modified	-	Primer modified for increased specificity.
49	New	New	Primer pair from vials 16 and 47.
50	New	New	Primer pair from vial 26.
51	New	New	Primer pair from vial 32.
52	New	New	Primer pair from vials 29 and 35. 5'primer modified for increased specificity.
53	New	New	Primer pair from vials 47.
54	New	New	Primer pair from vials 31 and 42.
55	New	New	Primer pair from vial 24.
56	New	New	Primer pair from vials 22 and 40.
57	New	New	Primer pair from vial 46.
58	New	New	Primer pair from vial 44.
59	New	New	Primer pair from vials 37 and 39.
60	New	New	Primer pair from vials 40 and 43.
61	New	New	Primer pair from vials 30 and 33.
62	New	New	Primer pair from vials 21 and 23.
63	New	New	Primer pair from vials 24 and 28.
64	New	New	Primer pair from vials 36 and 46.
65	New	New	Primer pair from vials 34 and 38.
66	New	New	Primer pair from vials 28 and 31.
67	New	New	Primer pair from vials 32 and 45.
68	New	New	Primer pair from vials 26 and 47.
69	New	New	New primer pair for the A*2480 allele.
70	New	New	New primer pair for the A*2481 allele.
71	New	New	New primer pair for the A*2482 allele.
72	New	New	New primer pair for the A*2483N allele.
73	New	New	New primer pair for the A*2484N allele.
74	New	New	New primer pair for the A*2485 allele.
75	New	New	New primer pair for the A*2486N allele.
76	New	New	New primer pair for the A*2476 allele.

PRODUCT DESCRIPTION

HLA-A*24 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the HLA-A*24020101 to A*2486N alleles.

PLATE LAYOUT

Each test consists of 76 PCR reactions in a 96 well PCR plate. Wells 77 to 96 are empty.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	empty	empty	empty	empty
empty	empty	empty	empty	empty	empty	empty	empty
empty	empty	empty	empty	empty	empty	empty	empty

The 96 well PCR plate is marked with 'HLA-A*24'.

Well No. 1 is marked with '63E'.

The PCR plates are covered with a PCR-compatible aluminum foil.

INTERPRETATION

The interpretation of HLA-A*24 SSP subtypings will be influenced by all A*01, several A*02, four A*03, four A*11, all A*23, eight A*26, three A*29, several A*30, four A*31, three A*32, the A*3310, several A*68, the A*7406 and the A*8001 alleles when present on the other haplotype. In addition, the B*0764, B*1512 and B*1519 alleles will be amplified by primer mixes 32 and 45. Moreover, the B*1827 allele will be amplified by mixes 6, 25, 30 and 48.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A*24 alleles, i.e. **A*24020101 to A*2486N**, recognized by the HLA Nomenclature Committee in April 2008¹ will give rise to unique amplification patterns by the primers in the HLA-A*24 subtyping kit.

The HLA-A*24 subtyping kit cannot distinguish the A*24020101, A*240202 to A*240209, A*240211, A*240212, A*240214 and A*240215 alleles and the A*240301 and A*240302 alleles.

¹HLA-A alleles listed on the IMGT/HLA web page 2008-April-08, release 2.21.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

The 82 A*24 alleles give rise to 85 different amplification patterns that can be combined in 3 655 homozygous and heterozygous combinations. 854 of these genotypes do not give rise to unique amplification patterns. (The different lengths of the specific PCR products in lanes 11, 27 and 30 were not considered in these calculations)

+++++++	+-+-----	-+-----	+-----	-----	+-----	-----	-----	-----	-----
	2403,2424	=	2424,2433						
+++++++	-----	+++++	-----	-----	-----	-----	-----	-----	-----
	2410,241301	=	2418,2446						
+++++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2402,2418	=	240210,2418	=	2403,241301	=	241301,2433	=	2418,2456
+++++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2402,2422	=	240210,2422						
+++++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2406	=	2406,2433						
+++++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2418	=	2418,2433						
+++++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2422	=	2422,2433						
++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2405	=	2405,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2404	=	2404,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2419	=	2419,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2407	=	2407,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2442	=	2433,2442						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2408	=	2408,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2461	=	2433,2461						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2425	=	2425,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2409N	=	2409N,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2414	=	2414,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2451	=	2433,2451						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2415	=	2415,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2457	=	2433,2457						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2453	=	2433,2453						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2441	=	2433,2441						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2417	=	2417,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2410,241302	=	2410,2456						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2410,2448N	=	2410,2454						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2402,2410	=	240210,2410	=	2403,2446	=	2410,2446	=	2433,2446
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	24020102L,2403	=	24020102L,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2411N	=	2411N,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2431	=	2431,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2427	=	2427,2433						
+++++	-----	-----	-----	-----	-----	-----	-----	-----	-----
	2403,2428	=	2428,2433						

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Lot-specific information

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2403,2430	=	2430,2433
2403,2444	=	2433,2444
2403,241302	=	2403,2456 = 241302,2433 = 2433,2456
2403,2432	=	2432,2433
2403,2435	=	2433,2435
2403,2429	=	2429,2433
2403,2459	=	2433,2459
2403,2437	=	2433,2437
2403,2439	=	2433,2439
2403,2436N	=	2433,2436N
2403,2445N	=	2433,2445N
2403,2447	=	2433,2447
2403,2448N	=	2403,2454 = 2433,2448N = 2433,2454
2403,2449	=	2433,2449
2403,2450	=	2433,2450
2403,2420	=	2420,2433
2403,2426	=	2426,2433
2403,2462	=	2433,2462
2403,2467	=	2433,2467
2403,2443	=	2433,2443
2403,2452	=	2433,2452
2403,2471	=	2433,2471
2403,2423	=	2423,2433
2403,2434	=	2433,2434
2403,2438	=	2433,2438
2403,2440N	=	2433,2440N
2403,2455	=	2433,2455
2403,2458	=	2433,2458
2403,2460N	=	2433,2460N
2403,2463	=	2433,2463
2403,2464	=	2433,2464
2403,2466	=	2433,2466
2403,2468	=	2433,2468
2403,2469	=	2433,2469
2403,2470	=	2433,2470
2403,2472	=	2433,2472

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+++++--+ -+----- --+----- +-----+-----
2403,2473 = 2433,2473
+++++--+ -+----- --+----- +-----+-----
2403,2474 = 2433,2474
+++++--+ -+----- --+----- +-----+-----
2403,2477 = 2433,2477
+++++--+ -+----- --+----- +-----+-----
2403,2479 = 2433,2479
+++++--+ -+----- --+----- +-----+-----
2403,2478 = 2433,2478
+++++--+ -+----- --+----- +-----+-----
2403,2480 = 2433,2480
+++++--+ -+----- --+----- +-----+-----
2403,2481 = 2433,2481
+++++--+ -+----- --+----- +-----+-----
2403,2482 = 2433,2482
+++++--+ -+----- --+----- +-----+-----
2403,2483N = 2433,2483N
+++++--+ -+----- --+----- +-----+-----
2403,2484N = 2433,2484N
+++++--+ -+----- --+----- +-----+-----
2403,2485 = 2433,2485
+++++--+ -+----- --+----- +-----+-----
2403,2486N = 2433,2486N
+++++--+ -+----- --+----- +-----+-----
2402,2403 = 2402,2433 = 240210,2403
+++++--+ -+----- +-----+----- +-----+-----
2403,2410 = 2410,2410 = 2410,2433
+++++--+ -+----- --+----- +-----+-----
2403,2421 = 2421,2433
+++++--+ -+----- --+----- +-----+-----
2403,2475 = 2433,2475
+++++--+ -+----- --+----- +-----+-----
2403,2403 = 2403,2433
+++++--+ -+----- --+----- ++-----+-----
241301,2422 = 241302,2422
+++++--+ -+----- --+----- +-----+-----
2406,2418 = 241301,2418 = 241302,2418
+++++--+ ++-----+----- --+----- +-----+----- +-----+-----
2421,2424 = 2424,2459
+++++--+ ++-----+----- --+----- +-----+----- +-----+-----
2402,2424 = 240210,2424 = 2424,2456 = 2424,2467 = 2424,2471
+++++--+ -+----- --+----- +-----+----- +-----+-----
241301,2421 = 241301,2459
+++++--+ -+----- --+----- +-----+----- +-----+-----
2402,241301 = 240210,241301 = 2406,2456 = 241301,2456
+++++--+ -+----- --+----- +-----+----- +-----+-----
2406,2421 = 2406,2459
+++++--+ -+----- --+----- +-----+----- +-----+-----
2402,2406 = 240210,2406
+++++--+ -+----- --+----- +-----+----- +-----+-----
2405,241302 = 2405,2456
+++++--+ -+----- --+----- +-----+----- +-----+-----
2405,2421 = 2405,2459
+++++--+ -+----- --+----- +-----+----- +-----+-----
2405,2448N = 2405,2454
+++++--+ -+----- --+----- +-----+----- +-----+-----
2402,2405 = 240210,2405
+++++--+ -+----- --+----- +-----+----- +-----+-----
2404,241302 = 2404,2456
+++++--+ -+----- --+----- +-----+----- +-----+-----
2404,2421 = 2404,2459
+++++--+ -+----- --+----- +-----+----- +-----+-----
2404,2448N = 2404,2454
+++++--+ -+----- --+----- +-----+----- +-----+-----
2402,2404 = 240210,2404
+++++--+ ++-----+----- --+----- +-----+----- +-----+-----
2407,2428 = 2419,2430
+++++--+ ++-----+----- --+----- +-----+----- +-----+-----
241302,2419 = 2419,2456
+++++--+ ++-----+----- --+----- +-----+----- +-----+-----
2419,2421 = 2419,2459



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2419,2448N = 2419,2454
2402,2419 = 240210,2419 = 2407,2444
2407,241302 = 2407,2456
2407,2421 = 2407,2459
2407,2448N = 2407,2454
2402,2407 = 240210,2407
2428,2442 = 2442,2444
241302,2442 = 2442,2456
2421,2442 = 2442,2459
2442,2448N = 2442,2454
2408,2430 = 2408,2442 = 2420,2442
2402,2442 = 240210,2442 = 2429,2442 = 2430,2442 = 2442,2442 = 2442,2461
2408,241302 = 2408,2456
241302,2461 = 2456,2461
2408,2421 = 2408,2459
2408,2448N = 2408,2454
2402,2408 = 240210,2408 = 2408,2408 = 2408,2420 = 2408,2429 = 2408,2461
2421,2461 = 2459,2461
2448N,2461 = 2454,2461
2402,2461 = 240210,2461 = 2461,2461
241302,2425 = 2425,2456
2421,2425 = 2425,2459
2425,2448N = 2425,2454
2402,2425 = 240210,2425 = 2425,2425
2409N,241302 = 2409N,2456
2409N,2421 = 2409N,2459
2409N,2448N = 2409N,2454
2402,2409N = 240210,2409N = 2409N,2409N
2417,2451 = 2441,2451 = 2441,2457
2415,2417 = 2415,2441 = 2441,2453
2414,2421 = 2414,2459
2402,2414 = 240210,2414 = 2414,2432
2421,2451 = 2451,2459
2415,2421 = 2415,2459
2421,2457 = 2457,2459
2421,2453 = 2453,2459

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2402,2451 = 240210,2451
2402,2415 = 240210,2415
2402,2457 = 240210,2457
2402,2453 = 240210,2453
241302,2441 = 2441,2456
241302,2417 = 2417,2456
2421,2441 = 2441,2459
2417,2421 = 2417,2459
2441,2448N = 2441,2454
2402,2441 = 240210,2441 = 2417,2441 = 2441,2441
2417,2448N = 2417,2454
2402,2417 = 240210,2417 = 2417,2417
241302,2446 = 2446,2456
2421,2446 = 2446,2459
2446,2448N = 2446,2454
2402,2446 = 240210,2446 = 2446,2446
24020102L,241302 = 24020102L,2456
24020102L,2421 = 24020102L,2459
24020102L,2448N = 24020102L,2454
2402,24020102L = 24020102L,24020102L = 24020102L,240210
2411N,241302 = 2411N,2456
2411N,2421 = 2411N,2459
2411N,2448N = 2411N,2454
2402,2411N = 240210,2411N = 2411N,2411N
241302,2431 = 2431,2456
2421,2431 = 2431,2459
2431,2448N = 2431,2454
2402,2431 = 240210,2431 = 2431,2431
241302,2427 = 2427,2456
2421,2427 = 2427,2459
2427,2448N = 2427,2454
2402,2427 = 240210,2427 = 2427,2427
241302,2428 = 2428,2456
2421,2428 = 2428,2459
2428,2448N = 2428,2454
2402,2428 = 240210,2428 = 2428,2430 = 2430,2444

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241302,2430 = 2430,2456
2421,2430 = 2430,2459
2430,2448N = 2430,2454
2402,2430 = 240210,2430 = 2430,2430
241302,2444 = 2444,2456
2421,2444 = 2444,2459
2444,2448N = 2444,2454
2402,2444 = 240210,2444
241302,2432 = 2432,2456
241302,2435 = 2435,2456
241302,2429 = 2429,2456
241302,2421 = 241302,2459 = 2421,2456 = 2456,2459
241302,2437 = 2437,2456
241302,2439 = 2439,2456
241302,2436N = 2436N,2456
241302,2445N = 2445N,2456
241302,2447 = 2447,2456
241302,2448N = 2448N,2456 = 2454,2456
241302,2449 = 2449,2456
241302,2450 = 2450,2456
241302,2420 = 2420,2456
241302,2426 = 2426,2456
241302,2462 = 2456,2462
241302,2467 = 2456,2467
241302,2443 = 2443,2456
241302,2471 = 2456,2471
241302,2423 = 2423,2456
241302,2434 = 2434,2456
241302,2438 = 2438,2456
241302,2440N = 2440N,2456
241302,2455 = 2455,2456
241302,2458 = 2456,2458
241302,2460N = 2456,2460N
241302,2463 = 2456,2463
241302,2466 = 2456,2466
241302,2468 = 2456,2468

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241302,2469 = 2456,2469
241302,2470 = 2456,2470
241302,2472 = 2456,2472
241302,2473 = 2456,2473
241302,2474 = 2456,2474
241302,2475 = 2456,2475
241302,2477 = 2456,2477
241302,2479 = 2456,2479
241302,2478 = 2456,2478
241302,2480 = 2456,2480
241302,2481 = 2456,2481
241302,2482 = 2456,2482
241302,2483N = 2456,2483N
241302,2484N = 2456,2484N
241302,2485 = 2456,2485
241302,2486N = 2456,2486N
241302,2476 = 2456,2476
2402,241302 = 2402,2456 = 240210,241302 = 240210,2456 = 241302,2456 = 2456,2456
2421,2432 = 2432,2459
2432,2448N = 2432,2454
2402,2432 = 240210,2432 = 2432,2432
2421,2435 = 2435,2459
2435,2448N = 2435,2454
2402,2435 = 240210,2435 = 2435,2435
2421,2429 = 2429,2459
2429,2448N = 2429,2454
2402,2429 = 240210,2429 = 2429,2429
2421,2437 = 2437,2459
2421,2439 = 2439,2459
2421,2436N = 2436N,2459
2421,2445N = 2445N,2459
2421,2447 = 2447,2459
2421,2448N = 2421,2454 = 2448N,2459 = 2454,2459
2421,2449 = 2449,2459
2421,2450 = 2450,2459
2420,2421 = 2420,2459

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2421,2426 = 2426,2459
2421,2462 = 2459,2462
2421,2467 = 2459,2467
2421,2443 = 2443,2459
2421,2452 = 2452,2459
2421,2471 = 2459,2471
2421,2423 = 2423,2459
2421,2434 = 2434,2459
2421,2438 = 2438,2459
2421,2440N = 2440N,2459
2421,2455 = 2455,2459
2421,2458 = 2458,2459
2421,2460N = 2459,2460N
2421,2463 = 2459,2463
2421,2464 = 2459,2464
2421,2466 = 2459,2466
2421,2468 = 2459,2468
2421,2469 = 2459,2469
2421,2470 = 2459,2470
2421,2472 = 2459,2472
2421,2473 = 2459,2473
2421,2474 = 2459,2474
2421,2477 = 2459,2477
2421,2479 = 2459,2479
2421,2478 = 2459,2478
2421,2480 = 2459,2480
2421,2481 = 2459,2481
2421,2482 = 2459,2482
2421,2483N = 2459,2483N
2421,2484N = 2459,2484N
2421,2485 = 2459,2485
2421,2486N = 2459,2486N
2421,2476 = 2459,2476
2402,2421 = 2402,2459 = 240210,2421 = 240210,2459 = 2421,2459 = 2459,2459
2437,2448N = 2437,2454
2402,2437 = 240210,2437 = 2437,2437

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Lot-specific information

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2439,2448N = 2439,2454
2402,2439 = 240210,2439 = 2439,2439
2436N,2448N = 2436N,2454
2402,2436N = 240210,2436N = 2436N,2436N
2445N,2448N = 2445N,2454
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2402,2447 = 240210,2447 = 2447,2447
2448N,2449 = 2449,2454
2448N,2450 = 2450,2454
2420,2448N = 2420,2454
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2443,2448N = 2443,2454
2448N,2471 = 2454,2471
2423,2448N = 2423,2454
2434,2448N = 2434,2454
2438,2448N = 2438,2454
2440N,2448N = 2440N,2454
2448N,2455 = 2454,2455
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2448N,2460N = 2454,2460N
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2448N,2466 = 2454,2466
2448N,2468 = 2454,2468
2448N,2469 = 2454,2469
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2448N,2473 = 2454,2473
2448N,2474 = 2454,2474
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2448N,2479 = 2454,2479
2448N,2478 = 2454,2478
2448N,2480 = 2454,2480

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2402, 2464 = 240210, 2464
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2402, 2475 = 240210, 2475
2402, 2477 = 240210, 2477 = 2477, 2477
2402, 2479 = 240210, 2479 = 2479, 2479

SPECIFICITY TABLE

HLA-A*24 SSP subtyping

Specificities and sizes of the PCR products of the 76 primer mixes used for HLA-A*24 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-A*24 alleles	Other amplified HLA Class I alleles ³
1⁷	210 bp	800 bp	24020101-240212, 240213 ^{weakly} , 240214-2411N, 241301-2415, 2417-2432, 2434-2464, 2466-2475, 2477-2486N	2301-2319Q, 8001 ^{weakly}
2	245 bp	1070 bp	240301-240302, 2410, 2418, 2422, 2433	021701-021702, 9208, 9210, 2304, 2907
3	210 bp	800 bp	24020101-2405, 2407-2411N, 2417, 2419-2421, 2423, 2425-2450, 2455, 2456, 2458-2463, 2466-2486N	
4⁵	220 bp	1070 bp	2406, 241301, 2418, 2422, 2424	021701-021702, 9208, 9210, 2301-2313, 2315-2319Q, 2907
5	175 bp	1070 bp	24020101-2404, 2406-2411N, 241301-241302, 2417-2423, 2425-2450, 2454-2456, 2458-2463, 2466-2486N	021701-021702 ^{weakly} , 2314
6⁵	175 bp	1070 bp	2405, 2424	2301-2313, 2315-2319Q, 2907, B*1827
7	335 bp	1070 bp	24020101-240302, 2405-2411N, 241301-241302, 2417, 2418, 2420-2427, 2429-2443, 2445N-2450, 2452, 2454-2456, 2458-	2301-2319Q

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Lot-specific information

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			2464, 2466-2486N	
8⁴	75 bp	1070 bp	2404	
9	225 bp	800 bp	2407, 2419, 2424	2313, 300101-300102, 301101-301102, 3014L-3020, 3023, 3024
10	370 bp	1070 bp	24020101-2406, 2408-2411N, 241301-241302, 2417, 2418, 2420-2423, 2425-2450, 2452, 2454-2456, 2458-2464, 2466-2486N	0210, 021701-021702, 0239, 9208, 9210, 2301-2312, 2314-2319Q
11⁸	200, 245 bp	1070 bp	2408, 2442, 2461	0276, 3022
12	235 bp	1070 bp	2425	2305
13	160 bp	1070 bp	24020101-240215, 2404-2409N, 2411N, 241301-2415, 2417, 2419, 2420, 2423-2432, 2434-2464, 2466-2474, 2476-2486N	0219, 0236, 0237, 0254, 2301, 2302, 2305-2319Q, 6826
14⁴	105 bp	1070 bp	2409N	
15	385 bp	800 bp	2414, 2415, 2451, 2453, 2457	0246, 0248, 0270, 0330, 9229, 3007, 3108, 3205
16⁴	85 bp	1070 bp	2417, 2441	2907
17	230 bp	1070 bp	2410, 2446	2310
18	270 bp	1070 bp	24020102L	
19⁷	195 bp	1070 bp	24020101-240209, 240211-2411N, 241301-2415, 2417-2432, 2434-2464, 2466-2486N	2301-2319Q
20^{6,7}	470 bp	1070 bp	2411N	0104N, 0321N, 1121N, 2307N
21	155 bp	800 bp	2431	
22⁴	125 bp	800 bp	2427	
23	190 bp	800 bp	2428, 2430, 2442	020109, 0250, 0309, 1106, 1118, 9222, 2312, 2603, 2606, 2621, 2630, 2633, 3208, 6805, 6815, 6820, 7406
24	240 bp	800 bp	2419, 2428, 2444	0276, 300101-

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				300102, 301101-301102, 3013-3020, 3023, 3024
25	220 bp	1070 bp	241301-241302, 2418, 2424, 2456	021701-021702, 9208, 9210, 2301, 230301-2319Q, 2907, B*1827
26	220 bp	800 bp	2422	
27^{4, 7, 9}	80, 375 bp	800 bp	2414, 2432	0246, 0248, 0270, 9229, 3205
28	155 bp	800 bp	2435	
29	210 bp	800 bp	2408, 2429, 2442	0276, 3022
30^{4, 7, 10}	125, 200 bp	800 bp	2421, 2459	230301-230302, 2907, B*1827
31	155 bp	800 bp	2437	
32	225 bp	1070 bp	2415, 2441, 2451	01010101-0104N, 0106-0130, 1127, 2629, 3213, B*0764^{weakly} , B*1512^{weakly} , B*1519^{weakly}
33⁴	100 bp	1070 bp	2439	
34	195 bp	800 bp	2436N	
35	200 bp	800 bp	2445N	
36^{4, 7}	115 bp	1070 bp	2447	
37	210 bp	1070 bp	2448N, 2454	
38	145 bp	800 bp	2449	
39	210 bp	800 bp	2450	9229
40	225 bp	1070 bp	2408, 2420	
41	205 bp	1070 bp	2426, 2462	2629, 3105, 3213, 3310
42	200 bp	1070 bp	2424, 2467	2616
43	160 bp	800 bp	2443	
44	250 bp	800 bp	2451, 2457	01010101-0104N, 0106-0119, 0121-0130, 0318, 1127, 2629, 2903, 3105, 3213, 3310, 6826, 8001
45	250 bp	1070 bp	2414, 2452	0120, 0219, 0236, 0237, 0254, 2629, B*0764 , B*1512 , B*1519
46^{4, 5}	110 bp	1070 bp	2415, 2441, 2451	0250, 0273, 0293, 9222, 2610,

				68020101-680202, 6815, 6818N, 6825, 6827, 6828, 6831, 6834, 6840
47	410 bp	800 bp	2426	0330, 3007, 3108, 3205
48	195 bp	1070 bp	2424, 2471 ^{weakly}	2301, 2302 ^{weakly} , 230301-2313, 2314 ^{weakly} , 2315- 2319Q, 2907, B*1827 ^{weakly}
49	245 bp	1070 bp	2423	
50	235 bp	800 bp	2434	
51	215 bp	800 bp	2438	
52⁷	240 bp	800 bp	2440N	
53	230 bp	1070 bp	2455	
54	165 bp	1070 bp	2458	
55	240 bp	1070 bp	2460N	
56	270 bp	1070 bp	2463	
57	135 bp	1070 bp	2464	
58	195 bp	1070 bp	2466	
59	255 bp	1070 bp	2468	
60	275 bp	800 bp	2469	
61⁴	105 bp	800 bp	2470	
62⁴	125 bp	800 bp	2472	9206
63	135 bp	1070 bp	2473	
64	170 bp	1070 bp	2474	
65⁴	80 bp	1070 bp	2475	
66	200 bp	800 bp	2477	
67	230 bp	1070 bp	2479	
68	285 bp	800 bp	2478	
69⁴	105 bp	1070 bp	2480	
70	250 bp	1070 bp	2481	
71	260 bp	800 bp	2482	2913, 3107, 3108, 3110
72⁴	120 bp	1070 bp	2483N	
73⁴	100 bp	1070 bp	2484N	
74	200 bp	1070 bp	2485	
75	290 bp	1070 bp	2486N	
76⁷	170 bp	1070 bp	2476	

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-A*24 SSP typings.

When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective length of the specific PCR product(s) of the alleles amplified by these primer mixes are given.

Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers.

PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings.

PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings.

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A*24 subtyping.

In addition, wells number 3, 9, 15, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 34, 35, 38, 39, 43, 44, 47, 50, 51, 52, 60, 61, 62, 66, 68 and 71 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

In the presence of a specific amplification the intensity of the control band often decreases.

³Due to the sharing of sequence motifs between HLA-A alleles some non-HLA-A*24 alleles will be amplified by primer mixes 1, 2, 4 to 7, 9 to 13, 15 to 17, 19, 20, 23 to 25, 27, 29, 30, 32, 39, 41, 42, 44 to 48, 62 and 71. In addition, the B*1512 and B*1519 alleles will be amplified by primer mixes 32 and 45. The B*1827 allele will be amplified by mixes 6, 25, 30 and 48.

We assume that unknown 4th exon A*23 and A*24 nucleotide sequences are conserved within the A*23/A*24 allele group.

⁴Short specific PCR fragments are less intense and not as sharp as longer specific bands.

⁵Primer mixes 4, 6 and 46 may yield specific PCR products than the other A*24 primer mixes.

⁶Primer mix 20 may give rise to a primer oligomer artefact.

⁷Primer mixes 1, 19, 20, 27, 30, 36, 52 and 76 may give rise to nonspecific amplifications.

⁸Primer mix 11: Specific PCR fragment of 200 bp in the A*2408, A*2442 and the A*0276, A*3002 alleles. Specific PCR fragment of 245 bp in the A*2461 allele.

⁹Primer mix 27: Specific PCR fragment of 80 bp in the A*2432 and A*3205 alleles. Specific PCR fragment of 375 bp in the A*2414, A*0246, A*0248, A*0270 and A*9229 alleles.

¹⁰Primer mix 30: Specific PCR fragment of 125 bp in the A*2421 and the A*2303, A*2907 and B*1827 alleles. Specific PCR fragment of 200 bp in the A*2459 allele.

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4	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	Well No.	
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
																										*0104N	
																											*0120
																											*020109, 0309
																											*0210, 0239
																											*021701-021702
																											*0219, 0236, 0237, 0254
																											*0246, 0248, 0270
																											*0250
																											*0273, 0293
																											*0276
																											*0318
																											*0321N, 1121N
																											*0330
																											*1106
																											*1118
																											*2301, 2306, 2308N, 2309, 2311N, 2315-2319Q
																											*2302
																											*230301-230302
																											*2304
																											*2305
																											*2307N
																											*2310
																											*2312
																											*2313
																											*2314
																											*2603, 2606, 2621, 2630, 2633
																											*2610
																											*2616
																											*2629
																											*2903
																											*2907
																											*2913
																											*300101-300102, 301101-301102, 3014L-3020, 3023, 3024
																											*3007
																											*3013
																											*3022
																											*3105, 3310
																											*3107, 3110
																											*3108
																											*3205
																											*3208, 6805, 6820, 7406
																											*3213
																											*68020101-680202, 6818N, 6825, 6827, 6828, 6831, 6834, 6840
4	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	Well No.	
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6

Well No.	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4				
*6815																																																		
*6826																																																		
*8001	W																																																	
*9206																																																		
*9208, 9210		+		+																																														
*9222																																																		
*9229																																																		
HLA-A allele ²									1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4					
Well No.	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	4	4	4	4	4	
B*0764, B*1512, B*1519																																																		
B*1827																																																		
Well No.	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells. Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A*24 subtyping. . In addition, wells number 3, 9, 15, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 34, 35, 38, 39, 43, 44, 47, 50, 51, 52, 60, 61, 62, 66, 68 and 71 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

²The sequence of the A*2401 has been shown to be in error. The sequence of the A*2412 allele has been shown to be identical to A*2408. The A*2416 allele has been renamed to A*3108. The A*2465 allele has been renamed to A*241302.

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4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	Well No.	
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6		
																												*6815	
																												*6826	
																												*8001	
																												*9206	
																												*9208, 9210	
																												*9222	
																												*9229	
4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	HLA-A allele ²	
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	Well No.	
																												B*0764, B*1512,	
																												B*1519	
																												B*1827	
4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	Well No.	
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6		

³Primer mix 11: Specific PCR fragment of 200 bp in the A*2408, A*2442 and the A*0276, A*3002 alleles. Specific PCR fragment of 245 bp in the A*2461 allele.
 Primer mix 27: Specific PCR fragment of 80 bp in the A*2432 and A*3205 alleles. Specific PCR fragment of 375 bp in the A*2414, A*0246, A*0248, A*0270 and A*9229 alleles.
 Primer mix 30: Specific PCR fragment of 125 bp in the A*2421 and the A*2303, A*2907 and B*1827 alleles. Specific PCR fragment of 200 bp in the A*2459 allele.
 'w', might be weakly amplified.

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Lot-specific information

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Well No.	1	2	3	4	5	6	7	8	9	10	11	12
5'-primer(s) ¹	650	368	368	368	368	368	317	265	98	282	98	28
	5'-C CC 3'	5'-g TT 3'	5'-g TT 3'	5'-g TT 3'	5'-g TT 3'	5'-g TT 3'	5'-g CT 3'	5'-CA g 3'	5'-C TC 3'	5'-CAC 3'	5'-C TC 3'	5'-TC g 3'
3'-primer(s) ²	819	570	539	538	502	502	368	299	282	368	256	92
	5'-g gT 3'	5'-C AC 3'	5'-TC T 3'	5'-CAA 3'	5'-CTT 3'	5'-CTg 3'	5'-CA A 3'	5'-TC g 3'	5'-g AC 3'	5'-CA A 3'	5'-CCC 3'	5'-AA C 3'
				538							303	
				5'-CCA 3'							5'-A gT 3'	
				555								
				5'-C CA 3'								
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
5'-primer(s) ¹	453	678	265	368	368	2 nd I	678	3 rd I	144	485	144	98
	5'-AAA 3'	5'-AgA 3'	5'-CA g 3'	5'-g TT 3'	5'-g TT 3'	5'-CgA 3'	5'-AgA 3'	5'-ATA 3'	5'-gCC 3'	5'-C Ag 3'	5'-gCC 3'	5'-C TC 3'
3'-primer(s) ²	570	742	368	413	559	570	831	621	259	570	292	299
	5'-C Cg 3'	5'-CTA 3'	5'-CA T 3'	5'-gC C 3'	5'-CCg 3'	5'-C Cg 3'	5'-T CC 3'	5'-gg g 3'	5'-CTg 3'	5'-C Cg 3'	5'-gTg 3'	5'-CC A 3'
	570											
	5'-C Ag 3'											
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
5'-primer(s) ¹	368	368	265	98	98	368	98	385	368	98	105	242
	5'-g TT 3'	5'-g TT 3'	5'-CA g 3'	5'-C TC 3'	5'-C TC 3'	5'-g TT 3'	5'-C TC 3'	5'-gg C 3'	5'-g TT 3'	5'-C TC 3'	5'-Tgg 3'	5'-g CT 3'
3'-primer(s) ²	527	545	302	214	265	453	212	570	427	250	265	317
	5'-CC T 3'	5'-Ag A 3'	5'-gg C 3'	5'-CCA 3'	5'-CCg 3'	5'-T Cg 3'	5'-gC A 3'	5'-C Cg 3'	5'-gTA 3'	5'-CA 3'	5'-CCC 3'	5'-gg A 3'
	539		355			527						
	5'-TC A 3'		5'-gAC 3'			5'-CC g 3'						
	555											
	5'-C CA 3'											
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
5'-primer(s) ¹	368	160	98	28	404	98	368	355	362	385	28	368
	5'-g TT 3'	5'-ACT 3'	5'-C TA 3'	5'-TC g 3'	5'-C CA 3'	5'-C TC 3'	5'-g TT 3'	5'-CC A 3'	5'-g Ag 3'	5'-gg C 3'	5'-TC C 3'	5'-g TT 3'
					414			363				
					5'-CAg 3'			5'-ATA 3'				
3'-primer(s) ²	532	265	265	81	570	259	488	570	570	453	265	524
	5'-CTA 3'	5'-CCC 3'	5'-CCC 3'	5'-g AT 3'	5'-C Cg 3'	5'-gTT 3'	5'-CC T 3'	5'-C Cg 3'	5'-C Cg 3'	5'-T CT 3'	5'-CCC 3'	5'-CA C 3'
	544											
	5'-ggg 3'											
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
5'-primer(s) ¹	368	98	90	630	368	98	98	28	361	414	368	28
	5'-g TT 3'	5'-C TC 3'	5'-AgC 3'	5'-AAg 3'	5'-g TT 3'	5'-C TC 3'	5'-C TC 3'	5'-TC g 3'	5'-Ag T 3'	5'-gAA 3'	5'-g TT 3'	5'-TC g 3'
3'-primer(s) ²	570	290	265	831	559	221	295	127	453	570	582	131
	5'-C Ag 3'	5'-CA A 3'	5'-CCC 3'	5'-T CC 3'	5'-CTC 3'	5'-AC A 3'	5'-TC A 3'	5'-CTT 3'	5'-T CT 3'	5'-C Cg 3'	5'-T Ag 3'	5'-g gA 3'
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

Lot No.: **63E**

Lot-specific information

www.olerup.com

Well No.	61	62	63	64	65	66	67	68	69	70	71	72
5'-primer(s)¹	368	530	409	186	575	98	678	368	98	359	98	699
	5'-g TT 3'	5'-g gT 3'	5'-gg C 3'	5'-AgA 3'	5'-g Cg 3'	5'-C TC 3'	5'-AgA 3'	5'-g TT 3'	5'-C TC 3'	5'-C CT 3'	5'-C AC 3'	5'-TAA 3'
3'-primer(s)²	434	616	502	317	616	256	866	614	163	570	317	777
	5'-CC C 3'	5'-CgT 3'	5'-CTT 3'	5'-gg A 3'	5'-CgT 3'	5'-CTg 3'	5'-gA T 3'	5'-TgT 3'	5'-C gg 3'	5'-C Cg 3'	5'-gg A 3'	5'-g CA 3'
Well No.	61	62	63	64	65	66	67	68	69	70	71	72

Well No.	73	74	75	76
5'-primer(s)¹	368	368	368	650
	5'-g TT 3'	5'-g TT 3'	5'-g TT 3'	5'-C CT 3'
3'-primer(s)²	426	525	613	777
	5'-T CT 3'	5'-AC T 3'	5'-TCg 3'	5'-g CA 3'
Well No.	73	74	75	76

¹The nucleotide position, in the 1st, 2nd, 3rd or 4th exons or the 2nd or 3rd intron, matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

²The nucleotide position, in the 2nd, 3rd or 4th exons, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

CELL LINE VALIDATION SHEET																					
HLA-A*24 SSP subtyping kit																					
					Lot No.:	Well															
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
						200846501	200846502	200846503	200846504	200846505	200846506	200846507	200846508	200846509	200846510	200846511	200846512	200846513	200846514	200846515	200846516
	IHC cell line	A*	A*																		
1	9001 SA	*2402				+	-	+	-	+	-	+	-	-	+	-	-	+	-	-	-
2	9280 LK707	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*0101				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*3001				-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
5	9009 KAS011	*0101				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0201	*2603			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*2601				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402				+	-	+	-	+	-	+	-	-	+	-	-	+	-	-	-
11	9051 PITOUT	*2902				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*3101				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402				+	-	+	-	+	-	+	-	-	+	-	-	+	-	-	-
16	9037 SWEIG007	*2902				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*0301	*8001			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*3303	*7401			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217				-	+	-	+	W	-	-	-	-	+	-	-	-	-	-	-
22	9056 KOSE	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*0201	*3401			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*2410	*2901			+	+	+	-	+	-	+	-	-	+	-	-	-	-	-	-
28	9320 BEL5GB	*0201	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*2902				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*3001	*6802			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
31	9019 DUCAF	*3002				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*0201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*3101				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*3101				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*3201				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*0206	*1101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*0301				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*0217				-	+	-	+	W	-	-	-	-	+	-	-	-	-	-	-
39	9315 CML	*0101	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*0207	*3001			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
41	9055 H0301	*0301				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*0207				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*0206	*0207			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*6601				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*2301	*2402			+	-	+	+	+	+	+	-	-	+	-	-	+	-	-	-
46	9013 SCHU	*0301				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*0216	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*0201	*1101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET				Well															
HLA-A*24 SSP subtyping kit																			
				Well															
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
			Lot No.:	200846517	200846518	200846519	200846520	200846521	200846522	200846523	200846524	200846525	200846526	200846527	200846528	200846529	200846530	200846531	200846532
	IHWC cell line	A*	A*																
1	9001 SA	*2402		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*0201		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
4	9275 GU373	*3001		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
5	9009 KAS011	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
6	9353 SM	*0201	*2603	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
7	9020 QBL	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*3101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*0301	*8001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*3303	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
22	9056 KOSE	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*0201	*3401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*2410	*2901	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*0201	*2902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*3001	*6802	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
31	9019 DUCAF	*3002		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*3101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*3101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*0206	*1101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*0217		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
39	9315 CML	*0101	*0301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
40	9134 WHONP199	*0207	*3001	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
41	9055 H0301	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*0207		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*0206	*0207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*6601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*2301	*2402	-	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-
46	9013 SCHU	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*0216	*0301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*0201	*1101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-A*24 SSP subtyping kit																				
				Lot No.:	Well															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
					200846533	200846534	200846535	200846536	200846537	200846538	200846539	200846540	200846541	200846542	200846543	200846544	200846545	200846546	200846547	200846548
	IHWC cell line	A*	A*																	
1	9001 SA	*2402			-	-	-	-	-	-	-	-	-	-	-	-	-			
2	9280 LK707	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
3	9011 E4181324	*0101			-	-	-	-	-	-	-	-	+	-	-	-	-			
4	9275 GU373	*3001			-	-	-	-	-	-	-	-	-	-	-	-	-			
5	9009 KAS011	*0101			-	-	-	-	-	-	-	-	+	-	-	-	-			
6	9353 SM	*0201	*2603		-	-	-	-	-	-	-	-	-	-	-	-	-			
7	9020 QBL	*2601			-	-	-	-	-	-	-	-	-	-	-	-	-			
8	9007 DEM	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
9	9026 YAR	*2601			-	-	-	-	-	-	-	-	-	-	-	-	-			
10	9107 LKT3	*2402			-	-	-	-	-	-	-	-	-	-	-	-	-			
11	9051 PITOUT	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-			
12	9052 DBB	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
13	9004 JESTHOM	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
14	9071 OLGA	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-			
15	9075 DKB	*2402			-	-	-	-	-	-	-	-	-	-	-	-	-			
16	9037 SWEIG007	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-			
17	9282 CTM3953540	*0301	*8001		-	-	-	-	-	-	-	-	+	-	-	-	-			
18	9257 32367	*3303	*7401		-	-	-	-	-	-	-	-	-	-	-	-	-			
19	9038 BM16	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
20	9059 SLE005	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
21	9064 AMALA	*0217			-	-	-	-	-	-	-	-	-	-	-	-	-			
22	9056 KOSE	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
23	9124 IHL	*0201	*3401		-	-	-	-	-	-	-	-	-	-	-	-	-			
24	9035 JBUSH	*3201			-	-	-	-	-	-	-	-	-	-	-	-	-			
25	9049 IBW9	*3301			-	-	-	-	-	-	-	-	-	-	-	-	-			
26	9285 WT49	*0205			-	-	-	-	-	-	-	-	-	-	-	-	-			
27	9191 CH1007	*2410	*2901		-	-	-	-	-	-	-	-	-	-	-	-	-			
28	9320 BEL5GB	*0201	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-			
29	9050 MOU	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-			
30	9021 RSH	*3001	*6802		-	-	-	-	-	-	-	-	-	-	+	-	-			
31	9019 DUCAF	*3002			-	-	-	-	-	-	-	-	-	-	-	-	-			
32	9297 HAG	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
33	9098 MT14B	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-			
34	9104 DHIF	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-			
35	9302 SSTO	*3201			-	-	-	-	-	-	-	-	-	-	-	-	-			
36	9024 KT17	*0206	*1101		-	-	-	-	-	-	-	-	-	-	-	-	-			
37	9065 HHKB	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-			
38	9099 LZL	*0217			-	-	-	-	-	-	-	-	-	-	-	-	-			
39	9315 CML	*0101	*0301		-	-	-	-	-	-	-	-	+	-	-	-	-			
40	9134 WHONP199	*0207	*3001		-	-	-	-	-	-	-	-	-	-	-	-	-			
41	9055 H0301	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-			
42	9066 TAB089	*0207			-	-	-	-	-	-	-	-	-	-	-	-	-			
43	9076 T7526	*0206	*0207		-	-	-	-	-	-	-	-	-	-	-	-	-			
44	9057 TEM	*6601			-	-	-	-	-	-	-	-	-	-	-	-	-			
45	9239 SHJO	*2301	*2402		-	-	-	-	-	-	-	-	-	-	-	-	+			
46	9013 SCHU	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-			
47	9045 TUBO	*0216	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-			
48	9303 TER-ND	*0201	*1101		-	-	-	-	-	-	-	-	-	-	-	-	-			

CELL LINE VALIDATION SHEET																				
HLA-A*24 SSP subtyping kit																				
				Lot No.:	Well															
					49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
					200846549	200846550	200846551	200846552	200846553	200846554	200846555	200846556	200846557	200846558	200846559	200846560	200846561	200846562	200846563	200846564
	IHC cell line	A*	A*																	
1	9001 SA	*2402			-	-	-	-	-	-	-	-	-	-	-	-	-			
2	9280 LK707	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
3	9011 E4181324	*0101			-	-	-	-	-	-	-	-	-	-	-	-	-			
4	9275 GU373	*3001			-	-	-	-	-	-	-	-	-	-	-	-	-			
5	9009 KAS011	*0101			-	-	-	-	-	-	-	-	-	-	-	-	-			
6	9353 SM	*0201	*2603		-	-	-	-	-	-	-	-	-	-	-	-	-			
7	9020 QBL	*2601			-	-	-	-	-	-	-	-	-	-	-	-	-			
8	9007 DEM	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
9	9026 YAR	*2601			-	-	-	-	-	-	-	-	-	-	-	-	-			
10	9107 LKT3	*2402			-	-	-	-	-	-	-	-	-	-	-	-	-			
11	9051 PITOUT	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-			
12	9052 DBB	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
13	9004 JESTHOM	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
14	9071 OLGA	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-			
15	9075 DKB	*2402			-	-	-	-	-	-	-	-	-	-	-	-	-			
16	9037 SWEIG007	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-			
17	9282 CTM3953540	*0301	*8001		-	-	-	-	-	-	-	-	-	-	-	-	-			
18	9257 32367	*3303	*7401		-	-	-	-	-	-	-	-	-	-	-	-	-			
19	9038 BM16	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
20	9059 SLE005	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
21	9064 AMALA	*0217			-	-	-	-	-	-	-	-	-	-	-	-	-			
22	9056 KOSE	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
23	9124 IHL	*0201	*3401		-	-	-	-	-	-	-	-	-	-	-	-	-			
24	9035 JBUSH	*3201			-	-	-	-	-	-	-	-	-	-	-	-	-			
25	9049 IBW9	*3301			-	-	-	-	-	-	-	-	-	-	-	-	-			
26	9285 WT49	*0205			-	-	-	-	-	-	-	-	-	-	-	-	-			
27	9191 CH1007	*2410	*2901		-	-	-	-	-	-	-	-	-	-	-	-	-			
28	9320 BEL5GB	*0201	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-			
29	9050 MOU	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-			
30	9021 RSH	*3001	*6802		-	-	-	-	-	-	-	-	-	-	-	-	-			
31	9019 DUCAF	*3002			-	-	-	-	-	-	-	-	-	-	-	-	-			
32	9297 HAG	*0201			-	-	-	-	-	-	-	-	-	-	-	-	-			
33	9098 MT14B	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-			
34	9104 DHIF	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-			
35	9302 SSTO	*3201			-	-	-	-	-	-	-	-	-	-	-	-	-			
36	9024 KT17	*0206	*1101		-	-	-	-	-	-	-	-	-	-	-	-	-			
37	9065 HHKB	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-			
38	9099 LZL	*0217			-	-	-	-	-	-	-	-	-	-	-	-	-			
39	9315 CML	*0101	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-			
40	9134 WHONP199	*0207	*3001		-	-	-	-	-	-	-	-	-	-	-	-	-			
41	9055 H0301	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-			
42	9066 TAB089	*0207			-	-	-	-	-	-	-	-	-	-	-	-	-			
43	9076 T7526	*0206	*0207		-	-	-	-	-	-	-	-	-	-	-	-	-			
44	9057 TEM	*6601			-	-	-	-	-	-	-	-	-	-	-	-	-			
45	9239 SHJO	*2301	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-			
46	9013 SCHU	*0301			-	-	-	-	-	-	-	-	-	-	-	-	-			
47	9045 TUBO	*0216	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-			
48	9303 TER-ND	*0201	*1101		-	-	-	-	-	-	-	-	-	-	-	-	-			

CELL LINE VALIDATION SHEET																	
HLA-A*24 SSP subtyping kit																	
					Lot No.:	Well											
						65	66	67	68	69	70	71	72	73	74	75	76
						200846565	200846566	200846567	200846568	200846569	200846570	200846571	200846572	200846573	200846574	200846575	200846576
	IHWC cell line	A*	A*														
1	9001 SA	*2402				-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*0201				-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*0101				-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*3001				-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*0101				-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0201	*2603			-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*2601				-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*0201				-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601				-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402				-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902				-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201				-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201				-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*3101				-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402				-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902				-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*0301	*8001			-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*3303	*7401			-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201				-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201				-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217				-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*0201				-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*0201	*3401			-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201				-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301				-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205				-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*2410	*2901			-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*0201	*2902			-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*2902				-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*3001	*6802			-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*3002				-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*0201				-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*3101				-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*3101				-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*3201				-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*0206	*1101			-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*0301				-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*0217				-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*0101	*0301			-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*0207	*3001			-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*0301				-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*0207				-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*0206	*0207			-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*6601				-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*2301	*2402			-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*0301				-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*0216	*0301			-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*0201	*1101			-	-	-	-	-	-	-	-	-	-	-	-

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A*24 SSP

Product number: 101.422-24/03 – including *Taq* pol.
Lot number: 63E
Expiry date: 2010-June-01
Number of tests: 24 tests – Product No. 101.422-24
3 tests – Product No. 101.422-03
Number of wells per test: 76

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2008-465-01	33	2008-465-33	65	2008-465-65
2	2008-465-02	34	2008-465-34	66	2008-465-66
3	2008-465-03	35	2008-465-35	67	2008-465-67
4	2008-465-04	36	2008-465-36	68	2008-465-68
5	2008-465-05	37	2008-465-37	69	2008-465-69
6	2008-465-06	38	2008-465-38	70	2008-465-70
7	2008-465-07	39	2008-465-39	71	2008-465-71
8	2008-465-08	40	2008-465-40	72	2008-465-72
9	2008-465-09	41	2008-465-41	73	2008-465-73
10	2008-465-10	42	2008-465-42	74	2008-465-74
11	2008-465-11	43	2008-465-43	75	2008-465-75
12	2008-465-12	44	2008-465-44	76	2008-465-76
13	2008-465-13	45	2008-465-45		
14	2008-465-14	46	2008-465-46		
15	2008-465-15	47	2008-465-47		
16	2008-465-16	48	2008-465-48		
17	2008-465-17	49	2008-465-49		
18	2008-465-18	50	2008-465-50		
19	2008-465-19	51	2008-465-51		
20	2008-465-20	52	2008-465-52		
21	2008-465-21	53	2008-465-53		
22	2008-465-22	54	2008-465-54		
23	2008-465-23	55	2008-465-55		
24	2008-465-24	56	2008-465-56		
25	2008-465-25	57	2008-465-57		
26	2008-465-26	58	2008-465-58		
27	2008-465-27	59	2008-465-59		
28	2008-465-28	60	2008-465-60		
29	2008-465-29	61	2008-465-61		
30	2008-465-30	62	2008-465-62		
31	2008-465-31	63	2008-465-63		
32	2008-465-32	64	2008-465-64		

The specificity of each primer solution of the kit has been tested against 48 well characterized cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 8, 11, 14, 21, 22, 26 to 29, 31, 33 to 36, 38 to 43, 45, 47 and 49 to 76 were available. The specificities of the primers in primer solutions 8, 11, 26, 27, 29, 39, 41, 42, 45, 47, 53, 56 to 58, 63 and 71 were tested by separately adding one or two additional 5'-primer(s), respectively one or two additional 3'-primer(s). In primer solutions 11, 13, 14, 21, 23, 28, 31, 33, 34, 37, 40, 43, 49, 50, 54, 55, 59 to 61, 66 to 69, 73 to 75 it was only possible to test the 5'primer, one of the 3'-primers was not possible to test. In primer solutions 22, 35, 36, 38, 41, 51, 52, 62, 64, 65, 70, 72 and 76 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. Additional 3'-primers in primer solutions 4, 25 and 30 were tested by separately adding additional 5'-primers. Additional 5'-primers in primer solution 41 were tested by separately adding additional 3'-primers.

Results: No false positive or false negative amplifications were obtained.

Date of approval: 2009-May-26

Approved by:

Quality Control, Supervisor

Declaration of Conformity

Product name: *Olerup* SSP[®] HLA-A*24
Product number: 101.422-24/03
Lot number: 63E

Intended use: HLA-A*24 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Hasselstigen 1
SE-133 33 Saltsjöbaden, Sweden
Phone: +46-8-717 88 27
Fax: +46-8-717 88 18

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2000 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, as transposed into the national laws of the Member States of the European Union.

The Technical Documentation File is maintained at *Olerup* SSP AB, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.

The Authorized Representative located within the Community is: *Olerup* SSP AB.

Notified Body: Lloyd's Register Quality Assurance Limited, Hiramford, Middlemarch Office Village, Siskin Drive, Coventry CV3 4FJ, United Kingdom. (Notified Body number: 0088.)

Saltsjöbaden, Sweden
2009-May-26

Olle Olerup

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