

UK NEQAS FOR H&I SCHEME 2B - CROSSMATCHING BY FLOW CYTOMETRY

T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 23RD SEPTEMBER 2014

HLA PHENOTYPE OF BLOOD DONOR: HLA-A24,A68; B8, B49; Cw7,-; DR11,DR17, DQ2,DQ7

Summary of Results

| | | | | |
|--------------|-------|-------|-------|-------|
| Total tested | 19 | 20 | 20 | 18 |
| Positive | 17 | 2 | 2 | 3 |
| Negative | 2 | 18 | 18 | 15 |
| Not Tested | 4 | 3 | 3 | 4 |
| % Positive | 89.5% | 10.0% | 10.0% | 16.7% |
| % Negative | 10.5% | 90.0% | 90.0% | 83.3% |

| | | | | |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|
| Consensus | Positive | Negative | Negative | Negative |
| HLA Antibody (Defined By CDC) | A3,A11+ | B12 | B57 | A11 |

| Lab No. | Serum 1 | Serum 2 | Serum 3 | Serum 4 | Date Received | Date Tested | Comments |
|---------|----------|----------|----------|-----------|---------------|-------------|------------------------------------------------------|
| 9 | Positive | Negative | Negative | NT | 24-Sep | 25-Sep | Serum 4 - NT due to poor duplicates |
| 11 | NT | Negative | Negative | Positive | 24-Sep | 25-Sep | Serum 1 - Unacceptable C.V between duplicate |
| 12 | NT | NT | NT | NT | 25-Sep | NT | NT - Late arrival of the samples |
| 14 | Positive | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 15 | Positive | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 19 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 20 | Positive | Negative | Negative | Positive | 24-Sep | 26-Sep | |
| 23 | NT | NT | NT | NT | 25-Sep | NT | NT - Late arrival of the samples |
| 24 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 25 | Positive | Positive | Positive | Positive | 24-Sep | 25-Sep | |
| 28 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 34 | Positive | Negative | Negative | Negative | 26-Sep | 26-Sep | Cell lysis was noted in separation phase |
| 35 | Positive | Positive | Positive | Negative | 24-Sep | 25-Sep | |
| 38 | Positive | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 39 | Positive | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 41 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 42 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 45 | Positive | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 48 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 51 | Positive | Negative | Negative | Equivocal | 24-Sep | 25-Sep | |
| 54 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 58 | NT | NT | NT | NT | 24-Sep | 24-Sep | Insufficient cell numbers isolated for crossmatching |
| 62 | Positive | Negative | Negative | Negative | 24-Sep | 24-Sep | |

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| Lab No. | Serum 1 cytometer reading | Serum 2 cytometer reading | Serum 3 cytometer reading | Serum 4 cytometer reading | Negative control (local) | Positive control (local) | Strong positive (local) | Weak positive (local) | Positive result value | Cytometer reading units | FCXM NIBSC negative control used? |
|---------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------------|-----------------------------------------|-------------------------|-----------------------|--------------------------------|----------------------------|-----------------------------------|
| 9 | 1.71 | 0.64 | 0.4 | NT | 1.03 | 38.4 | | | ≥1.5x Trimmed Mean | Median x (Log) | No |
| 11 | NT | 60 | 55 | 69.5 | 57.75 | 861 | | | >AB +2SD 57.71 | Median log channel | No |
| 12 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 14 | 459 | 325 | 286 | 350 | 2803 | 37692 | | | 1.5x Mean negative | Median log channel | Yes |
| 15 | Median 322 RMF 1.8 | 174 0.98 | 141 0.79 | 253 1.42 | 178 | 7633 | | | RMF >1.5 | | No |
| 19 | 0.568 | 0.386 | 0.369 | 0.436 | 0.395 | Pos 1 - 9.615 Pos 2 - 4.476 0.837 | | | 0.525 (1.33x Av neg control) | Log median x | No |
| 20 | 0.404 | 0.329 | 0.308 | 0.394 | 0.274 | 0.837 | | | 40 Linear channel shift | MCF | No |
| 23 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 24 | 432 | 241 | 176 | 224 | 212 | | 3934 | 706 | RR >1.5 | MFCN | Yes |
| 25 | 218 | 125 | 123 | 155 | 90 | 6930 | | | >1.3 RMF | Median log channel | Yes |
| 28 | 143 | 107 | 86 | 93 | 80 | 1358 | | | 17 (≥1.6 = Pos) | MFI | No |
| 34 | 5.6 | 4.48 | 4.33 | 4.89 | 4.8 | 12.7 | | | 5.52 (Av +2SD) | | No |
| 35 | 2.83 | 24.21 | 4.46 | 1.89 | 1.35 | 13.6 | | | 1.7 mean +3SD | Median log channel | Yes |
| 38 | 66.2 | 13.3 | 2.2 | 36.7 | 0 | 460.6 | | | ≥46 | Mean linear channel shift | No |
| 39 | 0.31 | 0.18 | 0.15 | 0.2 | 0.14 | 11.9 | | | >1.5 RMF | Median log fluorescence | Yes |
| 41 | 374 | 198 | 158.7 | 214.3 | 222.3 | 19966 | | | 2SD | Median | No |
| 42 | 875 | 832 | 799 | 823 | 804 | | 1265 | 872 | | Median linear channel | No |
| 45 | 284 | 249 | 235 | 253 | 226 | 659 | | | ≥266 (≥40 channel shift) | Median channel value | Yes |
| 48 | 0.81 | 0.6 | 0.58 | 0.65 | 0.57 | 7.21 | | | ≥1.3 RMF | | Yes |
| 51 | 4.14 | 2.25 | 1.8 | 2.29 | 1.67 | 166 | | | 3.67 | | No |
| 54 | 388, 389 | 325, 329 | 294, 275 | 323, 332 | 303, 291, 278, 285, 278, 282 | 780 | | | Sample MESF/AB serum MESF ≥1.2 | Median channel shift | No |
| 58 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 62 | 0.871 | 0.499 | 0.432 | 0.571 | 0.428 | 2.26 | | | RMF >1.5 | Median fluorescence values | Yes |

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Summary of Results

| | | | | |
|--------------|-------|-------|--------|--------|
| Total tested | 15 | 16 | 16 | 16 |
| Positive | 3 | 2 | 0 | 0 |
| Negative | 12 | 14 | 16 | 16 |
| Not Tested | 5 | 4 | 4 | 4 |
| % Positive | 20.0% | 12.5% | 0.0% | 0.0% |
| % Negative | 80.0% | 87.5% | 100.0% | 100.0% |

| | | | | |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|
| Consensus | Negative | Negative | Negative | Negative |
| HLA Antibody (Defined By CDC) | A3,A11+ | B12 | B57 | A11 |

| Lab No. | Serum 1 | Serum 2 | Serum 3 | Serum 4 | Date Received | Date Tested | Comments |
|---------|----------|---------------|----------|----------|---------------|-------------|-----------------------------------------------------------------------------------|
| 11 | NT | Negative | Negative | Negative | 24-Sep | 25-Sep | Serum 1 - Unacceptable C.V between duplicates NT - Late arrival of the samples |
| 12 | NT | NT | NT | NT | 25-Sep | NT | |
| 14 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 15 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 19 | Negative | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 20 | Negative | Positive | Negative | Negative | 24-Sep | 26-Sep | |
| 23 | NT | NT | NT | NT | 25-Sep | NT | NT - Late arrival of the samples |
| 24 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 25 | Negative | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 28 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 34 | Negative | Negative | Negative | Negative | 26-Sep | 26-Sep | Cell lysis was noted in separation phase |
| 38 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 39 | NT | NT | NT | NT | 24-Sep | 24-Sep | Technical failure |
| 41 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |
| 42 | Positive | Weak Positive | Negative | Negative | 24-Sep | 25-Sep | |
| 48 | Negative | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 51 | Positive | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 54 | Negative | Negative | Negative | Negative | 24-Sep | 25-Sep | |
| 58 | NT | NT | NT | NT | 24-Sep | 24-Sep | Insufficient cell numbers isolated for crossmatching |
| 62 | Negative | Negative | Negative | Negative | 24-Sep | 24-Sep | |

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| Lab No. | Serum 1 cytometer reading | Serum 2 cytometer reading | Serum 3 cytometer reading | Serum 4 cytometer reading | Negative control (local) | Positive control (local) | Strong positive (local) | Weak positive (local) | Positive result value | Cytometer reading units | FCXM NIBSC negative control used? |
|---------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------------|-------------------------------------------|-------------------------|-----------------------|-------------------------------------------|----------------------------|-----------------------------------|
| 11 | NT | 807.5 | 1039.5 | 1063 | 927 | 3715 | | | >1.6 RMF 1484 | Median log channel | No |
| 12 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 14 | 2424 | 2169 | 2059 | 2093 | 2159 | 26103 | | | 1.5x Mean negative | Median log channel | Yes |
| 15 | Median 3243 | 3027 | 2672 | 2655 | 2803 | 37692 | | | | | |
| 19 | RMF 1.16 4.748 | 1.07 5.087 | 0.95 5.077 | 0.95 4.876 | 0.95 5.943 | Pos 1 - 35.429 Pos 2 - 12.822 10.15 | | | RMF >1.5 11.529 (1.94x Av neg control) | Log median x | No No |
| 20 | 4.46 | 5.313 | 3.648 | 3.595 | 3.648 | 10.15 | | | 40 Linear channel shift | MCF | No |
| 23 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 24 | 2014 | 1510 | 854 | 818 | 966 | | 33135 | 9537 | RR >2.0 | MFCN | Yes |
| 25 | 1300 | 1018 | 860 | 874 | 1052 | 11235 | | | >1.3 RMF | Median log channel | Yes |
| 28 | 300 | 227 | 196 | 200 | 267 | 1316 | | | 4.9 (≥2.0 = Pos) | MFI | No |
| 34 | 35.57 | 31.8 | 35.2 | 30.7 | 69.91 | 97 | | | 52.95 (Av +2SD) | | No |
| 38 | 16.3 | -22.3 | -35.9 | -17.4 | 0 | 187.9 | | | ≥63 | Mean linear channel shift | No |
| 39 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 41 | 1810.7 | 1280.7 | 1027.3 | 1067 | 1400.3 | 34194 | | | 2SD | Median | No |
| 42 | 1086 | 1076 | 1033 | 1016 | 1026 | | 1141 | 1417 | | Median linear channel | No |
| 48 | 2.83 | 2.65 | 2.34 | 2.4 | 2.53 | 15.4 | | | ≥1.3 RMF | | Yes |
| 51 | 16.04 | 9.49 | 6.79 | 7.58 | 7.84 | 211 | | | 12.8 | | No |
| 54 | 601, 633, 589 | 611, 601, 591 | 630, 586, 592 | 620, 661, 611 | 612, 603, 602, 584, 611, 602 | 844 | | | Sample MESF/AB serum MESF ≥1.2 | Median channel shift | No |
| 58 | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| 62 | 5.24 | 3.58 | 2.73 | 2.50 | 3.05 | 43.8 | | | RMF >3.0 | Median fluorescence values | Yes |