

UK NEQAS for H&I Scheme 2B - Crossmatching by Flow Cytometry

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B07/2018 OS WB (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 02ND OCTOBER 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A25, A68; B35, B51; Cw4, Cw-; DR9, DR13; DQ6, DQ9

| Summary of Results | | | | | | | | | | | | |
|-------------------------------------------|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------|-----------------|-----------------|---------------|-------------|-----------------------------------------------------------------------------------------------------|
| | | T-cells | | | | B-cells | | | | | | |
| Total tested | | 14 | 15 | 15 | 15 | 13 | 14 | 14 | 14 | | | |
| Positive | | 10 | 0 | 0 | 0 | 11 | 1 | 6 | 1 | | | |
| Negative | | 4 | 15 | 15 | 15 | 2 | 12 | 7 | 13 | | | |
| Equivocal | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | | | |
| NT | | 6 | 5 | 5 | 5 | 6 | 5 | 5 | 5 | | | |
| % Positive | | 71.4% | 0.0% | 0.0% | 0.0% | 84.6% | 7.1% | 42.9% | 7.1% | | | |
| % Negative | | 28.6% | 100.0% | 100.0% | 100.0% | 15.4% | 85.7% | 50.0% | 92.9% | | | |
| % Equivocal | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 7.1% | 7.1% | 0.0% | | | |
| Consensus | Not Assessed | Negative | Negative | Negative | Positive | Negative | Not Assessed | Negative | | | | |
| HLA Antibody Specificity (Defined By CDC) | Cw5 Cw6 | A1 | A29 DR7 DQ2 | B44 | Cw5 Cw6 | A1 | A29 DR7 DQ2 | B44 | | | | |
| | | T-cells | | | | B-cells | | | | | | |
| Lab No. | Assessment T-cells B-cells | Serum 1 | Serum 2 | Serum 3 | Serum 4 | Serum 1 | Serum 2 | Serum 3 | Serum 4 | Date Received | Date Tested | Comments |
| 101 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Negative | Negative | 03-Oct | 04-Oct | Serum 1 positivity highlighted after pronase treatment Samples arrived late on a holiday weekend |
| 114 | YES YES | NT | NT | NT | NT | NT | NT | NT | NT | 04-Oct | 08-Oct | |
| 119 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Positive | Positive | 03-Oct | 03-Oct | NR= Relative number NR= (Mean Channel sample/ Mean Channel Negative Control)x100 |
| 126 | YES YES | Positive | Negative | Negative | Negative | Negative | Negative | Negative | Negative | 03-Oct | 03-Oct | |
| 136 | YES | Positive | Negative | Negative | Negative | | | | | 03-Oct | 04-Oct | |
| 142 | YES YES | Negative | Negative | Negative | Negative | Positive | Negative | Negative | Negative | 03-Oct | 05-Oct | Serum 3 - B-cell results would be reported as borderline in a clinical setting |
| 185 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Negative | Negative | 03-Oct | 04-Oct | |
| 186 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Equivocal | Negative | 03-Oct | 03-Oct | High background on B cells |
| 204 | YES YES | Positive | Negative | Negative | Negative | Positive | Equivocal | Positive | Negative | 03-Oct | 03-Oct | |
| 206 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Positive | Negative | 04-Oct | 04-Oct | Bad separation Method is not routinely used |
| 227 | YES YES | NT | NT | NT | NT | NT | NT | NT | NT | 03-Oct | | |
| 230 | YES YES | Negative | Negative | Negative | Negative | Positive | Negative | Negative | Negative | 04-Oct | 04-Oct | Very low number of B cells |
| 245 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Positive | Negative | 03-Oct | 04-Oct | |
| 284 | YES YES | Positive | Negative | Negative | Negative | Positive | Negative | Positive | Negative | 03-Oct | 03-Oct | No results returned |
| 311 | YES YES | NT | NT | NT | NT | NT | NT | NT | NT | 03-Oct | | |
| 315 | YES YES | NT | Negative | Negative | Negative | NT | Negative | Negative | Negative | | | Delivery issues |
| 358 | YES YES | Negative | Negative | Negative | Negative | Positive | Negative | Positive | Negative | 03-Oct | 03-Oct | |
| 374 | YES YES | Negative | Negative | Negative | Negative | Negative | Positive | Negative | Negative | 11-Oct | 11-Oct | |
| 380 | YES YES | NT | NT | NT | NT | NT | NT | NT | NT | | | |
| 401 | | NT | NT | NT | NT | NT | NT | NT | NT | | | |

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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 | Viability (%) |
|---------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|-------------------------|-----------------------|--------------------------------------|-----------------------------------------|---------------|
| 101 | 0.345 | 0.20 | 0.223 | 0.167 | 0.17 | 4.07 | | | 2SD | MFI | |
| 114 | | | | | | | | | | | |
| 119 | 0.511 | 0.197 | 1.214 | 0.184 | 0.162 | 5.73 | | | Ratio Pos >1.285 B.Line (1.285-1.48) | MnIX | 96 |
| 126 | 228 | 126 | 159 | 148 | 130 | 852 | | | >80 Median | Median Linear Channel | >90 |
| 136 | 7 | 2.2 | 2 | 2 | 2.1 | 86 | | | NR>200 | Geo Mean Channel | 99 |
| 142 | 255 | 112 | 77 | 70 | 223 | 4159 | | | 284.99 | Median Log Channel | |
| 185 | 0.71 | 0.49 | 0.5 | 0.48 | 0.49 | 3.41 | | | 2SD | Median Log Channel | |
| 186 | 1.4 | 0.5 | 0.5 | 0.6 | 0.4 | 60.5 | | | 1.5 Fold the local negative control | Mean Fluorescence Intensity-Log Channel | 99 |
| 204 | 0.702 | 0.31 | 0.318 | 0.318 | 0.347 | 3.01 | | | 0.530=1.5x loc | Mean Log Channel | |
| 206 | 2.04 | 0.77 | 0.71 | 0.64 | 0.69 | 3.44 | | | Ratio MFI | MFI | 90 |
| 227 | | | | | | | | | | | |
| 230 | 18, 27 | 18, 27 | 15, 54 | 15, 12 | 10.5 | 88, 77 | | | 20 MFI | | |
| 245 | 6 | 2 | 1 | 1 | 3 | 30.5 | | | 7 Linear Channel Shift | Linear Channel Shift | 100 |
| 284 | 477 | 421 | 420 | 400 | 371 | 1961 | | | Ratio >1.2 | Median Log Channel | |
| 311 | | | | | | | | | | | |
| 315 | | | | | | | | | | | |
| 358 | | | | | | | | | | | |
| 374 | 0 | 0 | 0 | 0 | 0 | 100 | | | 20% | Percentage | |
| 380 | | | | | | | | | | | |
| 401 | | | | | | | | | | | |

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B07/2018 (COMPARED TO LOCAL NEGATIVE CONTROL)

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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 | Viability (%) |
|---------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|-------------------------|-----------------------|-----------------------------------|------------------------------------------|---------------|
| 101 | 2.45 | 1.04 | 1.54 | 0.652 | 1.1 | 36.3 | | | 2SD | MFI | |
| 114 | | | | | | | | | | | |
| 119 | 8.67 | 3.39 | 6.2 | 4.51 | 1.7 | 7.94 | | | Ratio Pos >1.7 B.Line (1.5-1.7) | MnIX | 96 |
| 126 | 197 | 123 | 182 | 109 | 111 | 853 | | | >120 Median | Median Linear Channel | >90 |
| 142 | 1350 | 544 | 759 | 615 | 796.33 | 12025 | | | 1149.96 | Median Log Channel | |
| 185 | 0.67 | 0.2 | 0.34 | 0.25 | 0.21 | 5.69 | | | 2SD | Median Log Channel | |
| 186 | 2.5 | 0.8 | 1.5 | 0.7 | 0.5 | 55.9 | | | 2 Fold the local negative control | Mean Fluorescence Intensity- Log Channel | 99 |
| 204 | 4.52 | 1.23 | 1.66 | 0.398 | 0.558 | 22 | | | 1.12 | Mean Log Channel | |
| 206 | 6.74 | 1.43 | 3.31 | 0.96 | 1.04 | 4.8 | | | Ratio MFI | MFI | 90 |
| 227 | | | | | | | | | | | |
| 230 | 47, 20 | 19, 63 | 23, 71 | 22, 37 | 10, 75 | 365, 17 | | | 40 MFI | | |
| 245 | 27.7 | 7.2 | 13.2 | 4.2 | 6.3 | 82.2 | | | 15 Linear Channel Shift | Linear Channel Shift | 100 |
| 284 | 555 | 385 | 512 | 403 | 365 | 6676 | | | Ratio>1.2 | Median Log Channel | |
| 311 | | | | | | | | | | | |
| 315 | | | | | | | | | | | |
| 358 | | | | | | | | | | | |
| 374 | 0 | 21 | 0 | 0 | 0 | 100 | | | 20% | Percentage | |
| 380 | | | | | | | | | | | |
| 401 | | | | | | | | | | | |