

B-CELL LINE EXCHANGE #305

MAY 10, 2023

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| B-cell Line | 609 - 610 |
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The results for B-cell Line Exchange #305 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 6. We would like to express our appreciation to **Welsh Blood Service, Pontyclun** for sharing the interesting DRB1*13:29 and DRB1*13:31 cells examined in this study.

We would like to also thank the labs performing NGS for sharing their findings and encourage other NGS labs to do so as well. Haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Ter-609 The following is the reported HLA type for this cell from a donor of unknown ethnicity:

| HLA-A | | HLA-B | | HLA-C | |
|--------|--------|--------|--------|--------|--------|
| *26:01 | *30:02 | *18:01 | *40:01 | *03:04 | *05:01 |

| DRB1 | | DRB3/4/5 | | DQA1 | | DQB1 | | DPA1 | | DPB1 | |
|--------|--------|----------|----------|--------|--------|--------|--------|--------|--|--------|--------|
| *03:01 | *13:29 | B3*02:02 | B3*03:01 | *01:02 | *05:01 | *02:01 | *06:04 | *01:03 | | *02:02 | *03:01 |

One likely association present in this cell is A*30:02-B*18:01-DRB1*03:01-DQB1*02:01. This association is commonly observed in Caucasian populations, with HF = 0.00432 The other likely association present may then be A*26:01-B*40:01-DRB1*13:29-DQB1*06:04.

This cell is TER320, one of the reference cells for DRB1*13:29:01:01. It was examined several times in the Exchange as Ter 503 (2014), Ter 395 (2007), and Ter 320 (2003). In this present retyping, DRB1*13:29 was well assigned, with 26 labs reporting DRB1*13:29 and 2 labs reporting DRB1*13:29:01G. DRB1*03:01 (100%) was assigned as the second DRB1 type, with 6 labs assigning DRB1*03:01:01. Among labs reporting at low resolution, 46% assigned DRB1*03 (DR17).

Ter-610. The following is the reported HLA type for this cell from a Black donor of Jamaican descent:

| HLA-A | | HLA-B | | HLA-C | |
|--------|--------|--------|--------|--------|--------|
| *30:01 | *30:02 | *42:01 | *44:03 | *04:01 | *17:01 |

| DRB1 | | DRB3/4/5 | | DQA1 | | DQB1 | | DPA1 | | DPB1 | |
|--------|--------|----------|----------|--------|--------|------|--------|--------|--------|--------|---------|
| *11:01 | *13:31 | B3*02:02 | B3*03:01 | *01:02 | *05:05 | *03 | *05:02 | *01:03 | *02:01 | *01:01 | *105:01 |

One likely class I association present in this cell is A*30:01-B*42:01-C*17:01. It is the most common association observed in African Americans, with HF = 0.02943. The other likely association present, A*30:02-B*44:03-C*04:01, is exclusively observed in African Americans, with HF = 0.00140.

This cell was examined previously in the Exchange as Ter 470 (2012) and Ter 381 (2006). In the present retyping, DRB1*13:31 was assigned by 100% of labs reporting at high resolution. DRB1*11:01 (100%) was assigned as the second DRB1 type, with 8 labs assigning DRB1*11:01:02.

DQB1*05:02 and DQB1*03:19 were reported by 100% and 89%, respectively. DQB1*03:19 was not graded as the consensus was ≤ 90%. Among labs reporting at low resolution, 39% assigned DQB1*03 (DQ7).

NEXT MAILING DATE: August 2, 2023

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