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**TEST: HLA DQ-BETA 1 (DQB1)**

**PRINCIPLE:**

HLA alleles are typed via Next Generation Sequencing (NGS) technologies. Extracted DNA undergoes long range PCR, followed by NGS library preparation and subsequently loading onto the sequencer. The targeted nucleotide sequence of each loci is determined and then matched to HLA database (IMGT) to produce ultra-high resolution HLA typing. Therefore, typing with NGS substantially decreases ambiguity rates when compared to other current methods (SSO & SSP).

The NGS method is used to type HLA-Class II alleles. Some of these alleles have been associated with certain disease processes or clinical conditions. The DQ-Beta 2 allele may be associated with recurrent miscarriages in some couples.

**SPECIMEN REQUIREMENTS:**

**10mL whole blood collected in lavender top EDTA tubes (two 5ml tubes).** Specimen should be delivered to the laboratory within 72 hours at room temperature. Peripheral blood specimens that are clotted, have not been collected in EDTA, or frozen are not acceptable.

**METHOD:**

Next Generation Sequencing.

**REFERENCES:**

1. DYNAL SSP General Protocol, June 1994, DYNAL Inc., Lake Success, N.Y.
2. DYNAL DQB1 – SSP 1<sup>st</sup> Sets Product Description, Specificity and Interpretation Table, September 1994, DYNAL Inc., Lake Success, N.Y.
3. Bender, et al. Clinical Laboratory Procedure Manual, NCCLS. Code GP2-A, Vol. No. 2.

**Normal Range:** See lab report

**Turnaround Time:** 10 business days