

Division of Laboratory Medicine

Immunology

Double Negative T Cell (DNT) panel

General information

Assay principles: This test is usually done in conjunction with lymphocyte subsets surface markers (ID), in which case a separate sample is not required. This assay is used in the investigation of Autoimmune Lymphoproliferative Syndrome (ALPS) also known as Canale-Smith syndrome.

Patients with ALPS have an increase in a normally rare population of T cells that are alpha beta T-cell receptor (TCR) positive, and negative for both CD4 and CD8 (double negative T cells - DNTs). An ALPS-like phenotype could be identified in other immunological and haematological conditions and if this result is unexpected, please discuss with adult or paediatric immunology.

Assay interferences: Older samples may exhibit loss of surface antigens and therefore the sample should be as fresh as possible.

Laboratory information

Analyte: Double Negative T Cell (DNT) Panel

Units: %

Specimen type: Peripheral blood - EDTA

Method: Flow Cytometry

Frequency of analysis: Dependent on clinical indication

Turnaround times: 1-2 routine working days, Assay run daily Monday to Friday 09:00-15:00

Specimen transport: At room temperature

Additional/special requirements: Note that samples should be received in the laboratory no later than 3pm on a Friday. Samples should be kept at room temperature.

Participation in EQA Scheme: N/A

Clinical information

Interpretation: Use of this panel in the investigation of immunodeficiency should be discussed with the appropriate Consultant Immunologist (adult or paediatric).

References:

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- Revised diagnostic criteria and classification for the autoimmune lymphoproliferative syndrome (ALPS): report from the 2009 NIH International Workshop. *Joao B Oliveira et al. Blood, 2010 Oct 7;116(14):e35-40.*

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