MAYO CLINIC
Mayo Medical Laboratories

Laboratory Service Report 1-800-533-1710

Patient Name	Patient ID	Age	Gender	Order #
SAMPLEREPORTS,TRECN	SA00054655	30	F	SA00054655
Ordering Phys CLIENT,CLIENT				**DOB** 03/08/1983
Client Order # SA00054655	**Account Information**			**Report Notes**
Collected 03/11/2013 01:04	C7028846-DLMP Rochester 3050 Superior Drive Rochester, MN 55901			
Printed 04/15/2013 13:03				

Test	Flag	Results	Unit	Reference Value	Perform Site*
TREC, B			REPORTED 03/11/2013 13:16		
CD3 T Cells		1446	cells/mcL	550-2202	MCR
CD4 T Cells		943	cells/mcL	365-1437	MCR
CD8 T Cells		494	cells/mcL	171-846	MCR
TREC Copies		1673	per 10(6) CD3 Tcells	>770	MCR
Interpretation					MCR

Interpretation: The assay is sensitive to detect reliably 5 or greater TREC-positive T cells in blood. Thymic output is robustly normal for age. TREC result correlates with normal peripheral T cell counts. CD4 T cell homeostasis is maintained by a balance between thymic output and peripheral expansion of pre-existing T cells after puberty, while CD8 T cell homeostasis, in adults and older children, is maintained almost exclusively by peripheral expansion of pre-existing T cells.

Recommendations: For a comprehensive assessment of thymic output and corroboration of TREC results, recommend ordering the CD4 recent thymic emigrant (RTE) analysis (test number 89504). TRECs provide global and longitudinal assessment of thymic function for CD4 and CD8 T cells, but are affected by the longevity of naive T cells as well as cellular dilution due to T cell proliferation in the periphery. Quantitative RTE (CD4 T cells) analysis by flow cytometry provides an assessment of nascent thymic output (by identification of CD45RA+4+CD31+ T cells that have not undergone cell division and diluted their TREC).

Clinical Context: Unknown

Sample Information: The sample provided is a baseline analysis of TREC copies relative to T cell counts.
For research use only.

Reviewed by Jamie Bruflat MCR

* Performing Site:

MCR	Mayo Clinic Laboratories - Rochester Main Campus 200 First St SW Rochester, MN 55905	Lab Director: Franklin R. Cockerill, III, M.D.

* Report times for Mayo performed tests are CST/CDT