

Thyroid Receptor Antibodies

Synonyms	TRAb, TSH receptor antibodies, TSH-RAb
Clinical Indication	Thyroid disorders, Graves' disease, risk of neonatal hypothyroidism
	Features of hyperthyroidism are many and may include: breathlessness, goitre, hyperactivity, insomnia, irritability, anxiety, palpitations, muscle weakness, heat intolerance, increased sweating, increased appetite with weight loss, diarrhoea, infertility, oligomenorrhoea and amenorrhoea.
	In most patients the measurement of TSH receptor antibodies (TRAb) is not an essential investigation for diagnosing Grave's disease but is useful for determining the risk of neonatal hyperthyroidism in a pregnant woman with a history of Graves.
Part of Profile / See Also	Thyroid peroxidase antibodies
Request Form	Combined Pathology manual Blood form or ICE request
Availability / Frequency of	Referral test: Analysed by Immunology, Protein Reference Unit, Sheffield 8494
Analysis	Available for requests from Consultant Endocrinologist or agreed with Immunology Clinical Scientist. For other requests, TRAb will usually only be undertaken in pregnancy or post-partum or if thyroid peroxidase antibodies are not positive (i.e. negative or weak positive).
Turnaround Time	3 weeks
Patient Preparation	None required
Sample Requirements	*Please note a separate sample is required when Immunology tests are
	requested in addition to Biochemistry tests*
Specimen Type	Serum
Volume	2 ml
Container	Yellow top (SST) tube
Reference Range & Units	Negative: 0 - 0.9 IU/L
	Equivocal: 1.0 - 1.5 IU/L
	Positive: >1.5 IU/L.
Interferences	None known
Interpretation & Clinical	Positive TSH receptor antibody (TRAb) identifies the probable cause of hyperthyroidism is Graves' disease. The finding of persistently positive TRAb is
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Decision Value (if applicable)	useful in indicating that apparent remission of Graves' disease is unlikely to be sustained.
	TRAb measurement may also be helpful in classification of neonatal thyroid disease and aetiology of atypical eye disease.
	Nearly all cases of neonatal hyperthyroidism are associated with maternal Graves' disease where the cause is transplacental passage of TRAb.
	Please note: this assay does not differentiate between blocking and stimulating antibodies
References	https://sheffieldlaboratorymedicine.nhs.uk/search-test.php?search=3473
	NICE Clinical Knowledge Summaries
	2016 American Thyroid Association Guidelines for Diagnosis and Management of Hyperthyroidism and Other Causes of Thyrotoxicosis THYROID Vol 26, 10, 2016
	DAVIES et al. Thyroid Controversy—Stimulating Antibodies Journal of Clinical Endocrinology and Metabolism Vol. 83, No. 11
Test code	TRAB
Lab Handling	Aliquot and store at 4° ^c prior to testing and at -20° ^c or below for up to one month after receipt.



Accredited to ISO 15189:2022