Thyroglobulin (TG) Canine Protein

PRODUCT OVERVIEW

Product Name	Thyroglobulin (TG), Protein
Full Product Name	Canine thyroglobulin
Product Gene Name	TG protein
Product Synonym Names	Thyroglobulin, canine
Host	Canine thyroid gland
Form/Format	Lyophilized from PBS, pH 7.4 It is recommended to reconstitute lyophilized protein in distilled water to obtain the same concentration that was before lyophilization. To prepare diluted samples of thyroglobulin, it is recommended to use PBS, pH 7.4.
Purity/Purification	> 90% (SDS-PAGE)
Preparation and Storage	Store at -20 degree C (-15 to -30 degree C allowed) Avoid repeated freezing and thawing. It is recommended to aliquot the product after the first thawing.
Molecular Weight	298,383 Da
OMIM	188450
Analysis	Immunological identity confirmed by reaction with monoclonal antibody that is specific for the canine thyroglobulin.
Applications Tested/Suitable for TG protein	Immunoassay
Application Notes for TG protein	To be used as an antigen in immunoassays for determination of thyroglobulin autoantibodies in canine serum.
Related Product Information for TG protein	Immunological identity confirmed by reaction with monoclonal antibody that is specific for the canine thyroglobulin.
Other Notes	Small volumes of TG protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TG purchase	MBS664106 is a protein targeting TG. Also known as Canine thyroglobulin. Host: Canine thyroid gland.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TG. It may not necessarily be applicable to this product.

NCBI GI #	55770862
NCBI GeneID	7038
NCBI Accession #	NP_003226.4
UniProt Secondary Accession #	O15274; O43899; Q15593; Q15948; Q9NYR1; Q9NYR2; Q9UMZ0; Q9UNY3
UniProt Related Accession #	P01266
GenBank Nucleotide #	NM_003235.4
NCBI Official Full Name	thyroglobulin
NCBI Official Synonym Full Names	thyroglobulin
NCBI Official Symbol	TG

NCBI Official Synonym Symbols	TGN; AITD3
UniProt Protein Name	Thyroglobulin
Protein Family	Thyroglobulin
UniProt Gene Name	TG
UniProt Synonym Gene Names	Tg
UniProt Entry Name	THYG_HUMAN
NCBI Protein Information	thyroglobulin
NCBI Summary for TG	Thyroglobulin (Tg) is a glycoprotein homodimer produced predominantly by the thryroid gland. It acts as a substrate for the synthesis of thyroxine and triiodothyronine as well as the storage of the inactive forms of thyroid hormone and iodine. Thyroglobulin is secreted from the endoplasmic reticulum to its site of iodination, and subsequent thyroxine biosynthesis, in the follicular lumen. Mutations in this gene cause thyroid dyshormonogenesis, manifested as goiter, and are associated with moderate to severe congenital hypothyroidism. Polymorphisms in this gene are associated with susceptibility to autoimmune thyroid diseases (AITD) such as Graves disease and Hashimoto thryoiditis. [provided by RefSeq, Nov 2009]
UniProt Comments for TG	TG: Precursor of the iodinated thyroid hormones thyroxine (T4) and triiodothyronine (T3). Defects in TG are the cause of thyroid dyshormonogenesis 3 (TDH3). A disorder due to thyroid dyshormonogenesis, causing large goiters of elastic and soft consistency in the majority of patients. Although the degree of thyroid dysfunction varies considerably among patients with defective thyroglobulin synthesis, patients usually have a relatively high serum free triiodothyronine (T3) concentration with disproportionately low free tetraiodothyronine (T4) level. The maintenance of relatively high free T3 levels prevents profound tissue hypothyroidism except in brain and pituitary, which are dependent on T4 supply, resulting in neurologic and intellectual defects in some cases. Variations in TG are associated with susceptibility to autoimmune thyroid disease type 3 (AITD3). AITDs including Graves disease (GD) and Hashimoto thyroiditis (HT), are among the most common human autoimmune diseases. They are complex diseases, which are caused by an interaction between susceptibility genes and nongenetic factors, such as infection. Belongs to the type-B carboxylesterase/lipase family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 8q24 Cellular Component: extracellular space Biological Process: thyroid gland development Disease: Autoimmune Thyroid Disease, Susceptibility To, 3; Thyroid Dyshormonogenesis 3
Research Articles on TG	**1.** +49A/G and CT60 polymorphism of CTLA4 and E33 polymorphism of TG may be genetic risk factors for autoimmune hypothyroidism susceptibility.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/protein/thyroglobulin/664106