

Thyroglobulin Recombinant Protein | TG recombinant protein

Recombinant Human Thyroglobulin(TG)

CATALOG #
AAA113454

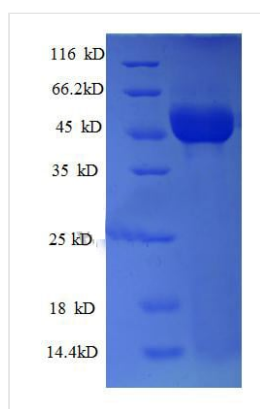
PRODUCT SYNONYMS

Thyroglobulin; Recombinant Human Thyroglobulin(TG); TG recombinant protein

PRODUCT SPECIFICATIONS

Purity/Purification	Greater than 90% as determined by SDS-PAGE.
Form/Format	Liquid containing glycerol
Sequence Positions	21-300
Sequence	IFEYQVDAQP LRPCELQRET AFLKQADYVP QCAEDGSFQT VQCQNDGRSC WCVGANGSEV LGSRQPGRPV ACLSFCQLQK QQILLSGYIN STDTSYLPQC QDSGDYAPVQ CDVQQVQCWC VDAEGMEVYG TRQLGRPKRC PRSCAIRNR LLHGVDKSP PQCSAEGEFM PVQCKFVNTT DMMIFDLVHS YNRFPDAFVT FSSFQRRFPE VSGYCHCADS QGRELAETGL ELLLDEIYDT IFAGLDLPST FTETT
Sequence Length	2768
Product Note	Applications are user defined. Product is developed and quality control tested in house, data or additional information may be provided upon request. The researcher needs to establish and confirm the suitability of the product for their application.
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for TG recombinant protein	Precursor of the iodinated thyroid hormones thyroxine (T4) and triiodothyronine (T3).
Product Categories/Family for TG recombinant protein	Metabolism; Raw Materials Assay Development

References

Primary structure of human thyroglobulin deduced from the sequence of its 8448-base complementary DNA.Malthiery Y., Lissitzky S.Eur. J. Biochem. 165:491-498(1987) The revised 8307 base pair coding sequence of human thyroglobulin transiently expressed in eukaryotic cells.van de Graaf S.A.R., Pauws E., de Vijlder J.J.M., Ris-Stalpers C.Eur. J. Endocrinol. 136:508-515(1997) DNA sequence and analysis of human chromosome 8.Nusbaum C., Mikkelsen T.S., Zody M.C., Asakawa S., Taudien S., Garber M., Kodira C.D., Schueler M.G., Shimizu A., Whittaker C.A., Chang J.L., Cuomo C.A., Dewar K., FitzGerald M.G., Yang X., Allen N.R., Anderson S., Asakawa T., Blechschmidt K., Bloom T., Borowsky M.L., Butler J., Cook A., Corum B., DeArellano K., DeCaprio D., Dooley K.T., Dorris L. III, Engels R., Gloeckner G., Hafez N., Hagopian D.S., Hall J.L., Ishikawa S.K., Jaffe D.B., Kamat A., Kudoh J., Lehmann R., Lokitsang T., Macdonald P., Major J.E., Matthews C.D., Mauceli E., Menzel U., Mihalev A.H., Minoshima S., Murayama Y., Naylor J.W., Nicol R., Nguyen C., O'Leary S.B., O'Neill K., Parker S.C.J., Polley A., Raymond C.K., Reichwald K., Rodriguez J., Sasaki T., Schilhabel M., Siddiqui R., Smith C.L., Sneddon T.P., Talamas J.A., Tenzin P., Topham K., Venkataraman V., Wen G., Yamazaki S., Young S.K., Zeng Q., Zimmer A.R., Rosenthal A., Birren B.W., Platzer M., Shimizu N., Lander E.S.Nature 439:331-335(2006) Sequence of the 5'-end quarter of the human-thyroglobulin messenger ribonucleic acid and of its deduced amino-acid sequence.Malthiery Y., Lissitzky S.Eur. J. Biochem. 147:53-58(1985) Structural organization of the 5' region of the thyroglobulin gene. Evidence for intron loss and 'exonization' during evolution.Parma J., Christophe D., Pohl V., Vassart G.J. Mol. Biol. 196:769-779(1987) An unusually long poly(purine) -poly(pyrimidine) sequence is located upstream from the human thyroglobulin gene.Christophe D., Cabrer B., Bacolla A., Targovnik H.M., Pohl V., Vassart G.Nucleic Acids Res. 13:5127-5144(1985) Genomic organization of the 5' region of the human thyroglobulin gene.Moya C.M., Mendive F.M., Rivolta C.M., Vassart G., Targovnik H.M.Eur. J. Endocrinol. 143:789-798(2000) Genomic organization of the 3' region of the human thyroglobulin gene.Mendive F.M., Rivolta C.M., Vassart G., Targovnik H.M.Thyroid 9:903-912(1999) Identification of a minor Tg mRNA transcript in RNA from normal and goitrous thyroids.Targovnik H.M., Cochaux P., Corach D., Vassart G.Mol. Cell. Endocrinol. 84:R23-R26(1992) Hormone synthesis in human thyroglobulin possible cleavage of the polypeptide chain at the tyrosine donor site.Marriq C., Lejeune P.J., Venot N., Vinet L.FEBS Lett. 242:414-418(1989) Preferential sites of proteolytic cleavage of bovine, human and rat thyroglobulin. The use of limited proteolysis to detect solvent-exposed regions of the primary structure.Gentile F., Salvatore G.Eur. J. Biochem. 218:603-621(1993) Characterization of hormonogenic sites in an N-terminal, cyanogen bromide fragment of human thyroglobulin.Xiao S., Pollock H.G., Taurog A., Rawitch A.B.Arch. Biochem. Biophys. 320:96-105(1995) Glycosylation in human thyroglobulin location of the N-linked oligosaccharide units and comparison with bovine thyroglobulin.Yang S.X., Pollock H.G., Rawitch A.B.Arch. Biochem. Biophys. 327:61-70(1996) Characterization of the type-1 repeat from thyroglobulin, a cysteine-rich module found in proteins from different families.Molina F., Bouanani M., Pau B., Granier C.Eur. J. Biochem. 240:125-133(1996) Consensus sequences for early iodination and hormonogenesis in human thyroglobulin.Lamas L., Anderson P.C., Fox J.W., Dunn J.T.J. Biol. Chem. 264:13541-13545(1989) Sulfated tyrosines of thyroglobulin are involved in thyroid hormone synthesis.Nlend M.-C., Cauvi D., Venot N., Chabaud O.Biochem. Biophys. Res. Commun. 262:193-197(1999) The hormonogenic tyrosine 5 of porcine thyroglobulin is sulfated.Venot N., Nlend M.-C., Cauvi D., Chabaud O.Biochem. Biophys. Res. Commun. 298:193-197(2002) A single chondroitin 6-sulfate oligosaccharide unit at Ser-2730 of human thyroglobulin enhances hormone formation and limits proteolytic accessibility at the carboxyl terminus. Potential insights into thyroid homeostasis and autoimmunity.Conte M., Arcaro A., D'Angelo D., Gnata A., Mamone G., Ferranti P., Formisano S., Gentile F.J. Biol. Chem. 281:22200-22211(2006) Thyroglobulin gene point mutation associated with non-endemic simple goitre.Corral J., Martin C., Perez R., Sanchez I., Mories M.T., San Millan J.L., Miralles J.M., Gonzalez-Sarmiento R.Lancet 341:462-464(1993) Two novel cysteine substitutions (C1263R and C1995S) of thyroglobulin cause a defect in intracellular transport of thyroglobulin in patients with congenital goiter and the variant type of adenomatous goiter.Hishinuma A., Takamatsu J., Ohyama Y., Yokozawa T., Kanno Y., Kuma K., Yoshida S., Matsuura N., Ieiri T.J. Clin. Endocrinol. Metab. 84:1438-1444(1999) Amino acid substitutions in the thyroglobulin gene are associated with susceptibility to human and murine autoimmune thyroid disease.Ban Y., Greenberg D.A., Concepcion E., Skrabanek L., Villanueva R., Tomer Y.Proc. Natl. Acad. Sci. U.S.A. 100:15119-15124(2003) A novel compound heterozygous mutation in the thyroglobulin gene resulting in congenital goitrous hypothyroidism with high serum triiodothyronine levels.Kitanaka S., Takeda A., Sato U., Miki Y., Hishinuma A., Ieiri T., Igarashi T.J. Hum. Genet. 51:379-382(2006) Congenital hypothyroidism with goitre caused by new mutations in the thyroglobulin gene.Caputo M., Rivolta C.M., Esperante S.A., Gruneiro-Papendieck L., Chiesa A., Pellizas C.G., Gonzalez-Sarmiento R., Targovnik H.M.Clin. Endocrinol. (Oxf.) 67:351-357(2007) Thyroglobulin gene mutations producing defective intracellular transport of thyroglobulin are associated with increased thyroidal type 2 iodothyronine deiodinase activity.Kanou Y., Hishinuma A., Tsunekawa K., Seki K., Mizuno Y., Fujisawa H., Imai T., Miura Y., Nagasaka T., Yamada C., Ieiri T., Murakami M., Murata Y.J. Clin. Endocrinol. Metab. 92:1451-1457(2007) The p.A2215D thyroglobulin gene mutation leads to deficient synthesis and secretion of the mutated protein and congenital hypothyroidism with wide phenotype variation.Pardo V., Vono-Toniolo J., Rubio I.G., Knobel M., Possato R.F., Targovnik H.M., Kopp P., Medeiros-Neto G.J. Clin. Endocrinol. Metab. 94:2938-2944(2009)

NCBI AND UNIPROT INFORMATION

NCBI GI #	55770862
-----------	----------

NCBI GeneID	7038
NCBI Accession #	NP_003226.4
NCBI GenBank Nucleotide #	NM_003235.4
UniProt Accession #	P01266; O15274; O43899; Q15593; Q15948; Q9NYR1; Q9NYR2; Q9UMZ0; Q9UNY3
Molecular Weight	59kD
NCBI Official Full Name	thyroglobulin
NCBI Official Synonym Full Names	thyroglobulin
NCBI Official Symbol	TG
NCBI Official Synonym Symbols	TGN; AITD3
NCBI Protein Information	thyroglobulin
UniProt Protein Name	Thyroglobulin
UniProt Gene Name	TG
UniProt Synonym Gene Names	Tg
UniProt Entry Name	THYG_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/tg-recombinant-protein/113454>