

Product datasheet for PH316216

Thyroglobulin (TG) (NM_003235) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	TG MS Standard C13 and N15-labeled recombinant protein (NP_003226)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC216216
Predicted MW:	304.8 kDa



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Protein Sequence: >RC216216 representing NM_003235
 Red=Cloning site Green=Tags(s)

MALVLEIFTLLASICWVSANIFEYQVDAQPLRPELQRETAFLKQADYVPPQCAEDGSFQTVQCQNDGRSC
 WCVGANGSEVLGSRQGRPVACL SFCQLQKQKQILL SGYINSTDTSYLPQCQDSGDYAPVQCQDVQVQCWC
 VDAEGMEVYGTROQLGRPKRCPRSCEIRNRRL LHGVGDKSPPQCSAEGEFMPVQCKFVNTTDMMIFDLVHS
 YNRFDAFVTFSSFRRRFPEVSGYCHCADSQGRELAETGLELLLDEIYDTIFAGLDLPSTFTETTLYRIL
 QRRFLAVQSVISGRFRCPKCEVERFTATSF GHYPYVPSRRNGDYQAVQCQTEGPCWCVDAQGKEMHGTR
 QQGEPPSCAEGQSCASERQQAL SRLYFGTSGYFSQHDL FSSPEKRWASPRVARFATSCPPTIKELFVDSG
 LLRPMVEGQSQQFSYSENLLKEAIRAIFPSRGLARLALQFTTNPKRLQQNLFGGKFLVNVGQFNLSGALG
 TRGTFFNF SQFFQQLGLASFLNGGRQEDLAKPLSVGLDNSSTGTPEAAKKGDMNKPTVGSFGFEINLQE
 NQNALKFLASLLELPEFLLFLQHAISVPEDVARDLGDVMTVLSSTQCEQTPERLFPVPSCTTEGSYEDVQ
 CFGSEGCWCVNSWGKELPGSRVRGGQPRCPTDCEKQARMQSLMGSQPAGSTLFPVACTSEGHF LPVQCFCN
 SECYCVDAEGQAIPGTRSAIGPKKCP TPCQLQSEQAF LRTVQALLSNSSMLPTLSDTYIPQCSTDGQWR
 QVQCNGPPEQVFEL YQRWEAQNKQDLP TPAKLLVKIMSYREAASGNFLSFIQSL YEAGQQDVFPVLSQYP
 SLQDVP LAALEGKRPQPRENILLEPYLFWQILNGQLSQYPGSYSDFTPLAHFDLRNCWCVDEAGQLELEG
 MRSEPSKLP TPCGSCEEAKLRVLQFIRETEEIVSASNSRRFPLGESFLVAKGIRLRNEDLGLPPLFPPRE
 AFAEQFLRGSDYAIRLAAQSTLSFYQRRRFPDSDSAGASALLRSGPYMPQCDAFGSWEPVQCHAGTGHCW
 CVDEKGGFIPGSLTARSLQIPQCPTTCEKSR TSGLLSSWKQARSQENPSPKDLFVPACLETGEYARLQAS
 GAGTWCVDPASGEELRPGSSSSAQCPSLCNV LKSGVL SRRVSPGYVPACRAEDGGFSPVQCQDAQGSCWC
 VMDSGEEVPGTRVTGGQPACESPRCPLPFNASEVVGTTILCETISGPTGSAMQQCQLL CRQGSWSVFPFG
 PLICSLSEGRWESQLPQPRACQRPQLWQTIQTQGHFQLQLPPGKMCSADYADLLQTFQVFI LDEL TARGF
 CQIQVKTFTGTLVSIPVCNNSVQVGL TRERLGNVNTWKSRLIEDIPVASLPDLHDIERALVGKDLLGRFT
 DLIQSGSFQLHLD SKTFPAETIRFLQGDHFGTSPRTWFGCSEGFYQVLTSEASQDQLGCVKCEPGSYSD
 EECIPCVGFYQEAGSLACVPCPVGRTTISAGAFSQTHTCVTDCQRNEAGLQCDQNGQYRASQKDRGSGK
 AFCVDGEGRRLPWWE TEAPLEDSQCLMMQKFEKVPE SKVIFDANAPVAVRSKVPDSEFPVMQCLTDCTED
 EACSFVVTSTTEPEISCDFYAWTSDNVACMTSDQKRDALGNSKATSF GSLRCQVKVRSHGQDSPA VYLK
 GGSTTTLQKRFEPTGFQNL SGLYNPIVFSASGANL TDAHLFCLLACDRDLCCDGFVL TQVQGGAIICG
 LLSPPSVLLCNVKDWM DPSEAWANATCPGVTYDQESHQVILRLGDQEFIKSL TPLEGTQDTFTNFQQVYL
 WKSDMGRSPESMGCRKDTVPRPASPT EAGL TTELFSPVDLNQVI VNGNQLSSQKHWLFKHLFSAQQAN
 LWCLSRCVQEH SFCQLAEITESASLYFTCTLYPEAQVCDDIMESNAQGCRLILPQMPKALFRKKVILEDK
 VKNFYTRLPFQKLMGISIRNKVPMSEKISNGFFECERRCADPCCTGFGLNVSQ LKGGEVCTLTLNSL
 GIQMCSEENGGAWRILDCGSPDIEVHTY PFGWYQKPIAQNNAPSFCLVVLPSL TEKVSLDSWSLALSS
 VVVDPSIRHFDVAHVSTAATS NFSAVRDLCLSECSQHEACLITTLQTQPGAVRCMFYADTQSC THSLQGG
 NCRLLLREEATHIYRKPGISLLSYEASVPSVPISTHGRLGRSQAIQVGT SWKQVDQFLGVPYAAPLAE
 RRFQAEPLNWTGSDASKPRASCWQPGRTRTSTSPGVSEDCLYLNVFIPQNVAPNASVLVFFHNTMDREE
 SEGWPAIDGSFLAAVGNLIVVTAS YRVGVFGFLSSGSGEVSGNWGLLDQVAAL TWVQTHIRGFGDPRRV
 SLAADRGGADVASIHL L TARATNSQLFRAVLMGGSALSPA AVISHERAQQQAIALAKEVSCPMSSSQEV
 VSCLRQK PANVLNDAQTKLLAVSGPFHYWGPVIDGHFLREPPARALKRSLWVEVDLLIGSSQDDGLINRA
 KAVKQFEESRGTSSKTA FYQALQNSLGGEDSDARVEAAATWYYSLEHSTDDYASF SRALENATRDYFII
 CPIIDMASAWAKRARGNVFMYHAPENYGHGSLELLADVQFALGLPFYPA YEGQFSLEEKSLSLKIMQYFS
 HFIRSGNPNYPYEF SRKVPTFATPWPDFVPRAGGENYKEFSELLPNRQGLKKADCSFWSKYISSLKT SAD
 GAKGGQSAESEEELTAGSGLREDLLSLQEPGSKTYSK

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Concentration: >0.05 µg/µL as determined by microplate BCA method

Labeling Method: Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine

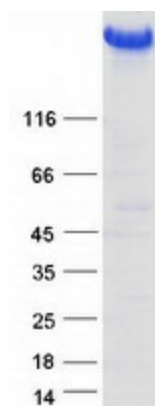
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_003226
RefSeq Size:	8453
RefSeq ORF:	8304
Synonyms:	AITD3; TGN
Locus ID:	7038
UniProt ID:	P01266
Cytogenetics:	8q24.22

Summary: Thyroglobulin (Tg) is a glycoprotein homodimer produced predominantly by the thyroid 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 dysmorphogenesis, 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 thyroiditis. [provided by RefSeq, Nov 2009]

Protein Families: Druggable Genome

Protein Pathways: Autoimmune thyroid disease

Product images:



Coomassie blue staining of purified TG protein (Cat# [TP316216]). The protein was produced from HEK293T cells transfected with TG cDNA clone (Cat# [RC216216]) using MegaTran 2.0 (Cat# [TT210002]).