

TPO/Thyroid peroxidase Protein, Human (A257S, T725P, sf9, His)

Cat. No.:	HY-P73582
Synonyms:	Thyroid peroxidase; TPO; THPO
Species:	Human
Source:	Sf9 insect cells
Accession:	P07202-1 (C15-R846, A257S, T725P)
Gene ID:	7173
Molecular Weight:	90-100 kDa

PROPERTIES

AA Sequence

C T E A F F P F I S	R G K E L L W G K P	E E S R V S S V L E	E S K R L V D T A M
Y A T M Q R N L K K	R G I L S P A Q L L	S F S K L P E P T S	G V I A R A A E I M
E T S I Q A M K R K	V N L K T Q Q S Q H	P T D A L S E D L L	S I I A N M S G C L
P Y M L P P K C P N	T C L A N K Y R P I	T G A C N N R D H P	R W G A S N T A L A
R W L P P V Y E D G	F S Q P R G W N P G	F L Y N G F P L P P	V R E V T R H V I Q
V S N E V V T D D D	R Y S D L L M A W G	Q Y I D H D I A F T	P Q S T S K A A F G
G G S D C Q M T C E	N Q N P C F P I Q L	P E E A R P A A G T	A C L P F Y R S S A
A C G T G D Q G A L	F G N L S T A N P R	Q Q M N G L T S F L	D A S T V Y G S S P
A L E R Q L R N W T	S A E G L L R V H A	R L R D S G R A Y L	P F V P P R A P A A
C A P E P G I P G E	T R G P C F L A G D	G R A S E V P S L T	A L H T L W L R E H
N R L A A A L K A L	N A H W S A D A V Y	Q E A R K V V G A L	H Q I I T L R D Y I
P R I L G P E A F Q	Q Y V G P Y E G Y D	S T A N P T V S N V	F S T A A F R F G H
A T I H P L V R R L	D A S F Q E H P D L	P G L W L H Q A F F	S P W T L L R G G G
L D P L I R G L L A	R P A K L Q V Q D Q	L M N E E L T E R L	F V L S N S S T L D
L A S I N L Q R G R	D H G L P G Y N E W	R E F C G L P R L E	T P A D L S T A I A
S R S V A D K I L D	L Y K H P D N I D V	W L G G L A E N F L	P R A R T G P L F A
C L I G K Q M K A L	R D G D W F W W E N	S H V F T D A Q R R	E L E K H S L S R V
I C D N T G L T R V	P M D A F Q V G K F	P E D F E S C D S I	P G M N L E A W R E
T F P Q D D K C G F	P E S V E N G D F V	H C E E S G R R V L	V Y S C R H G Y E L
Q G R E Q L T C T Q	E G W D F Q P P L C	K D V N E C A D G A	H P P C H A S A R C
R N T K G G F Q C L	C A D P Y E L G D D	G R T C V D S G R L	P R

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

Thyroid peroxidase (TPO) orchestrates the crucial processes of iodination and coupling of hormonogenic tyrosines within thyroglobulin, culminating in the production of the essential thyroid hormones T(3) and T(4).

Caution: Product has not been fully validated for medical applications. For research use only.

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