

TPO/Thrombopoietin Protein, Human (CHO, His)

Cat. No.:	HY-P7115
Synonyms:	rHuThrombopoietin/TPO; TPO
Species:	Human
Source:	CHO
Accession:	P40225 (S22-G353)
Gene ID:	7066
Molecular Weight:	Approximately 60-80 kDa

PROPERTIES

AA Sequence

MELTELLLVV	MLLLTARLTL	SSPAPPACDL	RVLSKLLRDS
HVLHSRLSQC	PEVHPLPTPV	LLPAVDFSLG	EWKTQMEETK
AQDILGAVTL	LLEGVMAARG	QLGPTCLSSL	LGQLSGQVRL
LLGALQSLLG	TQLPPQGRTT	AHKDPNAIFL	SFQHLLRGKV
RFLMLVGGST	LCVRRAPPTT	AVPSRTSLVL	TLNELPNRTS
GLLETNFTAS	ARTTGSGLLK	WQQGFRAKIP	GLLNQTSRSL
DQIPGYLNRI	HELLNGTRGL	FPGPSRRTL	APDISSGTS
TGSLPPNLQP	GYSPTSPTHP	TGQYTLFPLP	PTLPTPVVQL
HPLLPDPSAP	TPTPTSPLLN	TSYTHSQNLS	QEG

Biological Activity	The ED ₅₀ is typically 1-200 ng/mL as measured by MO7e human megakaryocytic leukemic cells in a cell proliferation assay.
Appearance	Solution
Formulation	Supplied as a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background

Recombinant thrombopoietin reduced radiation- and chemotherapy-induced thrombocytopenia, enhanced platelet recovery after bone marrow transplantation and increased the number of megakaryocyte precursor cells in stem cell

harvests. Injection of thrombopoietin into animals stimulates the number, size and ploidy of bone marrow megakaryocytes and increases the platelet count up to ten-fold^[1]. Superphysiological amounts of Thrombopoietin/TPO (>100 ng/mL) are able to directly activate platelet aggregation in vitro. Thrombopoietin/TPO also has significant effects on platelet adhesion under flow. Low Thrombopoietin/TPO concentrations (001-1 ng/mL) accelerate firm platelet adhesion to von Willebrand factor and prevent de-attachment at higher flow rates^[2].

REFERENCES

[1]. Kuter DJ, et al. Thrombopoietin: Biology and Clinical Applications. *Oncologist*. 1996;1(1 & 2):98-106.

[2]. Hitchcock IS, et al. Thrombopoietin from beginning to end. *Br J Haematol*. 2014 Apr;165(2):259-68.

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

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