

# Recombinant Human Thrombopoietin (rHuTPO)

## PrimeGene Technical Data Sheet

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<b>Catalog Number:</b>	102-06
<b>Source:</b>	CHO
<b>Molecular Weight:</b>	Approximately 80 kDa, consisting of a 332 amino acid residue with a predicted molecular mass of approximately 35 kDa. As a result of glycosylation, the recombinant protein migrates with an apparent molecular mass of $80 \pm 10$ kDa in SDS-PAGE.
<b>Quantity:</b>	2 $\mu$ g/10 $\mu$ g/1000 $\mu$ g
<b>AA Sequence:</b>	SPAPPACDLR VLSKLLRDSH VLHSRLSQCP EVHPLPTPVL LPAVDFSLGE WKTQMEETKA QDILGAVTLL LEGVMAARGQ LGPTCLSSLL GQLSGQVRL LGALQSLLGT QLPPQGRRTTA HKDPNAIFLS FQHLLRGKVR FLMLVGGSTL CVRRAPPTTA VPSRTSLVLT LNELPNRTSG LLETNFTASA RTTGSGLLKW QQGFRKIPG LLNQTSLD QIPGYLNRIH ELLNGTRGLF PGPSRRTLGA PDISSGTS DT GSLPPNLQPG YSPSPHPPT GQYTLFPLPP TLPTPVVQLH PLLPDPSAPT PTPTSPLLNT SYTHSQNLSQ EG
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human Mo7e cells is less than 3 ng/ml, corresponding to a specific activity of > $3.3 \times 10^5$ IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rHuTPO as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20$ °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### *Human Thrombopoietin*

Thrombopoietin (TPO), the ligand for the receptor encoded by the c-Mpl proto-oncogene, is a key regulator of megakaryocytopoiesis and thrombopoiesis in vitro and in vivo. The cDNAs for TPO have recently been cloned from canine, murine and human sources. Two distinct domains, separated by a pair of arginine residues that may be a proteolytic cleavage site, have been identified in TPO: the amino terminal region exhibiting sequence homology to erythropoietin and the carboxy terminal region containing multiple potential N-linked glycosylation sites. Recombinant TPO has now been shown to stimulate the maturation, as well as the proliferation, of megakaryocytes and may have important therapeutic applications for the treatment of various clinical conditions associated with thrombocytopenia.

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