

Product Datasheet

Recombinant Human Thrombopoietin (rHuTPO) (orb1495020)

Description	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. The proteins from these three species are highly conserved, exhibiting from 69-75% sequence identity at the amino acid level. Human Tpo cDNA encodes a 353 amino acid residue protein with a 21 amino acid residue signal peptide that is cleaved to yield the 332 amino acid residue mature protein. 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.
Endotoxins	Less than 1EU/mg of rHuTPO a as determined by LAL method.
Preservatives	Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.
Form/Appearance	Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.
Storage	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Note	For research use only
Application notes	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 -20°C. Further dilutions should be made in appropriate buffered solutions.

Biorbyt Ltd.

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Protein Sequence	SPAPPACDLRVLSKLLRDSHVLHSRLSQCPEVHPLPTPVLLPAVDFSLGEWKTQMEETKAQ DILGAVTLLLEGVMAARGQLGPTCLSSLLGQLSGQVRLLLGALQSLLGTQLPPQGRTTAHK DPNAIFLSFQHLLRGKVRFLMLVGGSTLCVRRAPPTTAVPSRTSLVLTLNELPNRTSGLLETN FTASARTTGSGLLKWQQGFRAKIPGLLNQTSRSLDQIPGYLNRIHELLNGTRGLFPGPSRRT LGAPDISSGTSDTGSLPPNLQPGYSPSPTHPPTGQYTLFPLPPTLPTPVVQLHPLLPDPSAPTP TPTSPLLNTSYTHSQNLSQEG
Purity	> 98% by SDS-PAGE and HPLC analyses.
Source	СНО
MW	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±10 kDa in SDS-PAGE.
Expiration Date	6 months from date of receipt.

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