

Recombinant Murine Thrombopoietin (rMuTPO)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	122-06
Source:	Escherichia coli.
Molecular Weight:	Approximately 18.7 kDa, a single non-glycosylated polypeptide chain containing 174 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	SPVAPACDPR LLNKLLRDSH LLHSRLSQCP DVDPLSIPVL LPAVDFSLGE
	WKTQTEQSKA QDILGAVSLL LEGVMAARGQ LEPSCLSSLL GQLSGQVRLL
	LGALQGLLGT QLPLQGRTTA HKDPNALFLS LQQLLRGKVR FLLLVEGPTL
	CVRRTLPTTA VPSSTSQLLT LNKF
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation
	assay using human MO7e cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0 \times
	10 ⁶ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 5% Trehalose.
Endotoxin:	Less than 0.1 EU/µg of rMuTPO as determined by LAL method.
Reconstitution:	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 \mathbb{C} . Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature
	recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
	 12 months from date of receipt, -20 to -70 °C as supplied.
	 1 month, 2 to 8 °C under sterile conditions after reconstitution.
	• 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further
	evaluation purposes. NOT FOR HUMAN USE.

Murine 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. The proteins from these three species are highly conserved, exhibiting from 69 - 75 % sequence identity at the amino acid level. 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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Rev. 08/20/2018 V.3

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