

## DATASHEET

Version 20181206

### TPO, His, Human

**Cat. No.:** Z03434-50

**Size:** 50.0 µg

**Synonyms:** Thrombopoietin;C-mpl ligand; Megakaryocyte colony-stimulating factor; Megakaryocyte growth and development factor; Myeloproliferative leukemia virus oncogene ligand;THPO

#### Description:

Thrombopoietin (TPO) is a glycoprotein hormone which belongs to the EPO/TPO family. It produced by the liver and kidney which regulates the production of platelets. TPO stimulates the production and differentiation of megakaryocytes, the bone marrow cells that bud off large numbers of platelets. Lineage-specific cytokine affects the proliferation and maturation of megakaryocytes from their committed progenitor cells. It acts at a late stage of megakaryocyte development. It may be the major physiological regulator of circulating platelets.

Recombinant Human TPO produced by a mammalian expression system is a polypeptide chain containing 346 amino acids. A fully biologically active molecule; rhTPO a molecular mass of 75-90 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

#### Amino Acid Sequence:

Ser<sup>22</sup>-Gly<sup>353</sup> (Accession #: P40225);expressed with a 6His tag at the N-terminus, 6His tag at the C-terminus.

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00001 HHHHHSPAP PACDLRVLSK LLRDSHVLHS RLSQCPEVHP
00041 LPTPVLLPAV DFSLGEWKTQ MEETKAQDIL GAVTLLEGV
00081 MAARGQLGPT CLSLLGQLS GQVRLLLGAL QSLGTQLPP
00121 QGRRTAHKDP NAIFLSFQHL LRKGVRFML VGGSTLCVRR
00161 APPTTAVPSR TSLVLTNLN PNRTSGLLET NFTASARTTG
00201 SGLLKWQGF RAKIPGLLNQ TSRLDQIPG YLNRIHELLN
00241 GTRGLFPGPS RRTLGAPDIS SGTSDTGSLP PNLQPGYSPS
00281 PTHPPTGQYT LFPLPPTLPT PVVQLHPLLP DPSAPTPTPT
00321 SPLNNTSYTH SQNLSQEGVD HHHHHH
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#### Source: Human Cells

**Biological Activity:** Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED50 for this effect is typically 0.5-5 ng/mL.

**Molecular Weight:** 75-90 kDa; observed by reducing SDS-PAGE.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM Tris, 150mM NaCl, pH 8.0.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/ml.

**Purity:** > 95% as analyzed by reducing SDS-PAGE.

**Endotoxin Level:** < 1 EU/µg; determined by LAL method.

**Storage:** Lyophilized recombinant TPO, His, Human remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution; Human TPO should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.