

TECHNICAL DATA SHEET

# Recombinant Mouse Thrombopoietin (TPO) (Carrier-free)

Catalog Number: 21-8686

## RPx-Pro™ Recombinant Protein

### PRODUCT INFORMATION

#### CONTENTS

Recombinant Mouse Thrombopoietin (TPO) (Carrier-free)

#### DESCRIPTION

Thrombopoietin (TPO) is a growth factor that is involved in the proliferation and differentiation of megakaryocytes and, ultimately, to the production of platelets (thrombopoiesis). TPO signals through the c-mpl (CD110) receptor, and acts as an important regulator of circulating platelets. TPO is produced in the liver and kidney.

#### MOLECULAR MASS

Recombinant murine TPO is a fully biologically active 174 amino acid polypeptide (18.7 kDa), which contains the erythropoietin-like domain of the full length TPO protein.

#### AMINO ACID SEQUENCE

SPVAPACDPR LLNKLLRDSH LLHSRLSQCP DVDPLSIPVL LPAVDFSLGE WKTQTEQSKA QDILGAVSLL LEGVMAARGQ LEPSCLSSLL  
 GQLSGQVRLR LGALQGLLGT QLPLQGRTTA HKDPNALFLS LQQLLRGKVR FLLLVEGPTL CVRRTLPTTA VPSSTSQLLT LNKF

#### SOURCE

E. coli

#### APPLICATIONS

Bioassay

#### PURITY

98 %

#### STORAGE

-20°C

#### PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE

#### ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/μg of protein (<1 EU/μg).

#### AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

#### CROSS REACTIVITY

Human

#### BIOACTIVITY

The ED<sub>50</sub> as determined by the dose-dependent stimulation of the proliferation of human MO7e cells was found to be ≤ 1.0 ng/ml, corresponding to a specific activity of ≥ 1 x 10<sup>6</sup> units/mg.

#### RESEARCH AREAS

Cell Culture; Proliferation; Stem Cells & Differentiation; Wound Healing

#### RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

#### REFERENCES

Lok S, Kaushansky K, Holly RD, Kuijper JL, Lofton-Day CE, Oort PJ, Grant FJ, Heipel MD, Burkhead SK, Kramer JM, et al. 1994. Nature. 369(6481):565-568. Deutsch VR and Tomer A. 2013. Br J Haematol. 2013. 161(6): 778-793. Hitchcock IS and Kaushansky K. 2014. Br J Haematol. 165(2): 259-268.

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