

TECHNICAL DATA SHEET

Recombinant Human Thrombopoietin (TPO) (Carrier-free)

Catalog Number: 21-8685

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human 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 human TPO is a fully biologically active 174 amino acid polypeptide (18.6 kDa), which contains the erythropoietin-like domain of the full length TPO protein.

AMINO ACID SEQUENCE

SPAPPACDLR VLSKLLRDSH VLHSRLSQCP EVHPLPTPV LPAVDFSLGE WKTQMEETKA QDILGAVTLL LEGVMAARGQ
 LGPTCLSSLL GQLSGQVRLL LGALQSLLGT QLPPQGRRTA HKDPNAIFLS FQHLLRGKVR FLMLVGGSTL CVRRAPPTTA VPSRTSLVLT
 LNEL

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

Monkey, Mouse

BIOACTIVITY

The ED₅₀ 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 10⁶ 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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