

TECHNICAL DATA SHEET

Recombinant Human EPO (Carrier-free)

Catalog Number: 21-8992

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Human EPO (Carrier-free)

DESCRIPTION

Erythropoietin (EPO) is a secreted, glycosylated growth factor that plays an important role in erythropoiesis, where it is the major regulator for stimulating proliferation and differentiation of erythroid progenitor cells. EPO induces the final maturation of partially differentiated erythroid cells and the production of red cell-specific proteins, such as hemoglobin. The protein is found in the plasma, and physiological levels of EPO in adult mammals are maintained primarily by the kidneys, whereas levels in fetal or neonatal mammals are maintained by the liver. EPO may also exert various non-hematopoietic activities, including neuroprotective activity from damage and initiation of repair.

MOLECULAR MASS

This recombinant human EPO contains 166 amino acid residues and has a calculated molecular weight of approximately 18.4 kDa. As a result of glycosylation, Recombinant Human EPO migrates with an apparent molecular mass of 37.0 kDa by SDS-PAGE gel, under reducing and non-reducing conditions.

AMINO ACID SEQUENCE

APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT VPDTKVNFYA WKRMEVGGQA VEVWQGLALL SEAVLRGQAL
LVNSSQPWEP LQLHVDKAVS GLRSLTLLR ALGAQKEAIS PPAASAAPL RTITADTRK LFRVYSNFLR GKLKLYTGEA CRTGDR

SOURCE

CHO cells

APPLICATIONS

Bioassay

PURITY

90 %

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

BIOACTIVITY

Determined by a cell proliferation assay using TF-1 cells. The expected ED₅₀ for this effect is 0.8-1.0 ng/ml.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Proliferation; Neurobiology; Stem Cells & Differentiation

RECONSTITUTION

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

REFERENCES

Chin K, Yu X, Beleslin-Cokic B, Liu C, Shen K, Mohrenweiser HW, Noguchi CT. 2000. Brain Res Mol Brain Res. 81(1-2): 29-42. Sinclair AM, Coxon A, McCaffery I, Kaufman S, Paweletz K, Liu L, Busse L, Swift S, Elliott S, Begley CG. 2010. Blood. 115(21): 4264-4272.

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