TECHNICAL DATA SHEET

Recombinant Human Angiopoietin-1 (Carrier-free)

Catalog Number: 21-7167

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Human Angiopoietin-1 (Carrier-free)

DESCRIPTION

Angiopoietin-1 (ANG-1, ANGPT1) is a secreted glycoprotein belonging to the angiopoietin family of growth factors that play a critical role in the regulation of angiogenesis and vascular development. Angiopoietin-1 is a ligand for receptor tyrosine kinase Tie-2, and ligation to Tie-2 on vascular endothelial cells promotes blood vessel development and stabilization of mature blood vessels. The process is regulated by Angiopoietin-2, a natural antagonist for Tie-2, and by Tie-1, an inhibitory co-receptor.

MOLECULAR MASS

Recombinant Human Angiopoietin-1 is a 56.3 kDa glycoprotein with a C-terminal His-tag. It migrates under reducing conditions at approximately 60-70 kDa by SDS-PAGE. Based on sequencing, the N-terminus starts with Ser-20 and Asp-70 of the precursor protein.

AMINO ACID SEQUENCE

SNQRRSPENS GRRYNRIQHG QCAYTFILPE HDGNCRESTT DQYNTNALQR DAPHVEPDFS SQKLQHLEHV MENYTQWLQK LENYIVENMK SEMAQIQQNA VQNHTATMLE IGTSLLSQTA EQTRKLTDVE TQVLNQTSRL EIQLLENSLS TYKLEKQLLQ QTNEILKIHE KNSLLEHKIL EMEGKHKEEL DTLKEEKENL QGLVTRQTYI IQELEKQLNR ATTNNSVLQK QQLELMDTVH NLVNLCTKEG VLLKGGKREE EKPFRDCADV YQAGFNKSGI YTIYINNMPE PKKVFCNMDV NGGGWTVIQH REDGSLDFQR GWKEYKMGFG NPSGEYWLGN EFIFAITSQR QYMLRIELMD WEGNRAYSQY DRFHIGNEKQ NYRLYLKGHT GTAGKQSSLI LHGADFSTKD ADNDNCMCKC ALMLTGGWWF DACGPSNLNG MFYTAGQNHG KLNGIKWHYF KGPSYSLRST TMMIRPLDFH HHHHH

SOURCE	APPLICATIONS	PURITY	STORAGE
HeLa cells	Bioassay	95 %	-20°C

PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

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

A dose-dependent proliferation assay with human umbilical vein endothelial cells (HUVECs) is used to determine activity.

RESEARCH AREAS

Apoptosis, Angiogensis & Cardiovascular, Bone and Cartidage

RECONSTITUTION

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

REFERENCES

Tsigkos S, Koutsilieris M and Papapetropoulos A. 2003. Expert Opin Investig Drugs. 12(6): 933-941. Davis S, Aldrich TH, Jones PF, Acheson A, Compton DL, Jain V, Ryan TE, Bruno J, Radziejewski C, Maisonpierre PC, et. al. 1996. Cell. 87(7): 1161-1169. Sato A, Iwama A, Takakura N, Nishio H, Yancopoulos GD and Suda T. 1998. Int Immunol. 10(8):1217-1227. Singh H, Tahir TA, Alawo DO, Issa E and Brindle NP. 2011. Biochem Soc Trans. 39(6): 1592-1596. Koh GY. 2013. Trends Mol Med. 19(1): 31-39.

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