

PRODUCT DATA SHEET



Angiopoietin-1 (human, recombinant)

CATALOG NO.: SE-549

LOT NO.: XXXXX

DESCRIPTION: MW~66 kDa by SDS-PAGE. Recombinant human glycosylated angiopoietin-1 (Ang1, Angpt1) comprising amino acids 21-496, with an N-terminal purification tag. Angiopoietin-1 is secreted by endothelial and other cell types as oligomers into the extracellular matrix, where it can bind to and activate the receptor tyrosine kinase Tie2^{1,2}. This in turn leads to expression of MMPs and plasmin; alteration of adhesion molecule function; smooth muscle cell and neutrophil chemotaxis; and smooth muscle cell differentiation to endothelial cells; generally resulting in angiogenesis. Ang1/Tie2 dysregulation have been implicated in rheumatoid arthritis, asthma, diabetic complications, and cancer²⁻⁵.

PURITY: >95% by SDS-PAGE, FPLC, and RP-HPLC.

BIOLOGICAL ACTIVITY: Confirmed by induction of endothelial cell sprouting⁶. Endotoxin levels less than 0.1 ng per µg angiopoietin-1 (IEU/µg).

USAGE: Can be used *in vitro* and *in vivo*^{3,7,8}. Typical concentration of angiopoietin-1 used in culture is 0.1-1 µg/ml^{3,7}.

SUPPLIED AS: XXµg protein at 1 µg/µl in 50 mM Tris-HCl pH 7.5, 150 mM NaCl, 0.05% CHAPS, with 0.1% BSA as stabilizing agent.

STORAGE: -20°C or -80°C (in aliquots for longer periods). Avoid repeated freeze/defrost cycles.

REFERENCES:

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2. T. Makinde and D.K. Agrawal *J. Cell. Mol. Med.* 2008 **12** 810
3. S. Fukuhara *et al. Nat. Cell Biol.* 2008 **10** 513
4. J.X. Chen and A. Stinnett *Arterioscler. Thromb. Vasc. Biol.* 2008 **28** 1606
5. N.A. Abdel-Malak *et al. Blood* 2008 **111** 4145
6. T. Korff *et al. FASEB J.* 2001 **15** 447
7. J.R. Gamble *et al. Circ. Res.* 2000 **87** 603
8. D.C. Simoes *et al. Am. J. Respir. Crit. Care Med.* 2008 **177** 1314

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