ANGPT1
Recombinant Human Angiopoietin-1, His-Tag

Catalog No.	CRA009A	**Quantity:**	5 µg
	CRA009B		20 µg

Alternate Names: ANG-1, ANGPT1, AGP1

Description: The Angiopoietins are a family of growth factors which bind to the endothelial receptor tyrosine kinase Tie2. Two of the Angs, Ang-1 and Ang-4, activate the Tie2 receptor, whereas Ang-2 and Ang-3 inhibit Ang-1-induced Tie2 phosphorylation. Ang-1 is a secreted growth factor which enhances endothelial cell survival and capillary morphogenesis, also it limits capillary permeability. Ang-2 is a natural inhibitor of Ang-1 because it binds the same receptor but fails to activate it. When ambient levels of VEGF are high Ang-2 destabilizes capillary integrity, facilitating sprouting, but when VEGF levels are low it causes vessel regression.

Preliminary data suggests angiopoietins are implicated in deregulated vessel growth in Wilms' kidney tumors and in vascular remodeling after nephrotoxicity. Existing data suggests that during vascular development VEGF-A and Angiopoietins not only have different roles, but also complementary and coordinated roles.

UniProt ID: Q15389

Gene ID: 284

Source: HeLa Cells

Molecular Weight: 60-70 kDa (485 aa)

Formulation: Lyophilized from 20 mM sodium phophate, 200 mM $CaCl_2$, pH 7.5, 5% Trehalose

Purity: > 95% by SDS-PAGE and HPLC analyses

Endotoxin Level: < 1 EU/µg

Biological Activity: The biological activity was determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC).

Amino Acid Sequence:
MSNQRRSPENSGRRYNRIQHGQCAYTFILPEHDGNCRESTTDQYNTNALQ
RDAPHVEPDFSSQKLQHLEHMENYTQWLQKLENYIVENMKSEMAQIQQNA
VQNHTATMLEIGTSLLSQTAEQTRKLTDVETQVLNQTSRLEIQLLENSLS
TYKLEKQLLQQTNEILKIHEKNSLLEHKILEMEGKHKEELDTLKEEKENL
QGLVTRQTYIIQELEKQLNRATTNNSVLQKQQLELMDTVHNLVNLCTKEG
VLLKGGKREEEKPFRDCADVYQAGFNKSGIYTIYINNMPEPKKVFCNMDV
NGGGWTVIQHREDGSLDFQRGWKEYKMGFGNPSGEYWLGNEFIFAITSQR
QYMLRIELMDWEGNRAYSQYDRFHIGNEKQNYRLYLKGHTGTAGKQSSLI
LHGADFSTKDADNDNCMCKCALMLTGGWWFDACGPSNLNGMFYTAGQNHG
KLNGIKWHYFKGPSYSLRSTTMMIRPLDFHHHHHH

Reconstitution: **Centrifuge vial prior to opening.** Add sterile water to the vial to a concentration of 0.1 - 1.0 mg/mL. **Do not vortex.** After complete solubilization of the protein, it can be further diluted to other solutions containing a carrier protein, such as 0.1 % BSA.

Storage & Stability: The lyophilized protein is stable at -20°C to -80° for up to 1 year. Reconstituted working aliquots are stable for 1 week at 2-8°C and for 3 months at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

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