

Recombinant Human ANGPT2 Protein (Met1-Gln248 and Lys275-Phe496), MlgG2a Fc-tagged

Cat. No. ANGPT2-1067H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ANGPT2 Protein (NP_001138.1) (Met1-Gln248 and Lys275-Phe496 linked by a polypeptide linker) was produced by HEK293 Cells expression system. This protein was expressed with the Fc region of mouse IgG2a at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	Met1-Gln248 and Lys275-Phe496
Description	Angiopoietin-2 (ANG 2, or ANGPT2), is a member of the ANG family, which plays an important role in angiogenesis during the development and growth of human cancers. Both ANGPT-1 and ANGPT-2 appear to bind to the tyrosine kinase receptor, Tie-2, found primarily on the luminal surface of endothelial cells. ANG-2's role in angiogenesis generally is considered as an antagonist for ANG1, inhibiting ANG1-promoted Tie2 signaling, which is critical for blood vessel maturation and stabilization. ANG-2 modulates angiogenesis in a cooperative manner with another important angiogenic factor, vascular endothelial growth factor A. Genetic studies have revealed that ANG-2 also is critical in lymphangiogenesis during development. ANG-2 has multiple physiologic effects that regulate vascular tone, hormone secretion, tissue growth and neural activity. Several reports indicate that ANG-2 can induce neovascularization in experimental systems due to the expression of different growth

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factors such as angiopoietin 2, vascular endothelial factor, and its receptor, fibroblast growth factor, platelet derived growth factor, transforming growth factor beta and epidermal growth factor. In addition, ANG-2 is strongly expressed in the vasculature of many tumors and it has been suggested that ANG-2 may act synergistically with other cytokines such as vascular endothelial growth factor to promote tumor-associated Angiogenesis and tumor progression.

Predicted N Terminal	Tyr 19
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human ANGPT2 consists of 708 amino acids and predicts a molecular mass of 80.3 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 85 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.

Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	ANGPT2 angiopoietin 2 [Homo sapiens]
Official Symbol	ANGPT2
Synonyms	ANGPT2; angiopoietin 2; angiopoietin-2; Ang2; ANG-2; Tie2-ligand; angiopoietin-2B; ANG2; AGPT2;
Gene ID	285
mRNA Refseq	NM_001118887
Protein Refseq	NP_001112359
MIM	601922
UniProt ID	O15123

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