

## Recombinant Human Angiopoietin 2, Myc-tagged

**Cat. No.** ANGPT2-116H    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**      Recombinant Human Angiopoietin-2 (Ang-2), a 66 kDa protein consisting of 476 amino acid residues (N21-F496), is fused to an N-terminal myc-tag and produced in *insect cells*.

**Species**      Human

**Source**      Insect Cells

**ProteinLength**      21-496 a.a.

**Description**

The angiopoietin (Ang) family of growth factors includes four members, all of 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. Angiopoietin-1 (Ang-1) is a secreted growth factor which binds to and activates the Tie-2 receptor tyrosine kinase. The factor enhances endothelial cell survival and capillary morphogenesis, and also limits capillary permeability. Ang-2 binds the same receptor but fails to activate it: hence, it is a natural inhibitor of Ang-1. Ang-2 destabilises capillary integrity, facilitating sprouting when ambient vascular endothelial growth factor (VEGF) levels are high, but causing vessel regression when VEGF levels are low. Tie -1 is a Tie -2 homologue but its ligands are unknown. Angiopoietin and Tie genes are expressed in the mammalian metanephros, the precursor of the adult kidney, where they may play a role in endothelial precursor growth. Tie-1-expressing cells can be detected in the metanephros when it first forms and, based on transplantation experiments, these precursors contribute to the

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	generation of glomerular capillaries.
<b>Physical Appearance</b>	Sterile Filtered white lyophilized freeze dry powder.
<b>Purity</b>	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
<b>Formulation</b>	The protein is formulated with no additives.
<b>Solubility</b>	It is recommended to reconstitute the lyophilized Angiotensin II in sterile 18MΩ-cm H <sub>2</sub> O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
<b>Biological Activity</b>	The biological activity was determined by the induction of endothelial cell sprouting as described in Korff et al., 2001.
<b>Protein Content</b>	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 1.4 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of ANG-2 as a Reference Standard.
<b>Storage</b>	Lyophilized Angiotensin II although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Angiotensin II should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** [ANGPT2 angiotensin 2 \[ Homo sapiens \]](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Synonyms</b>	ANGPT2; angiotensin 2; ANG2; AGPT2; Tie2-ligand; angiotensin-2; angiotensin-2B; angiotensin-2a; Ang2; ANG-2
<b>Gene ID</b>	<a href="#">285</a>
<b>mRNA Refseq</b>	<a href="#">NM_001118887</a>
<b>Protein Refseq</b>	<a href="#">NP_001112359</a>
<b>MIM</b>	<a href="#">601922</a>
<b>UniProt ID</b>	<a href="#">O15123</a>
<b>Chromosome Location</b>	8p23
<b>Pathway</b>	Hemostasis; Signaling in Immune system
<b>Function</b>	receptor binding

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

PDB rendering based  
on 1z3s.



 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA