

## ANGPT2/Angiopoietin-2 Protein, Human, Recombinant (His & Avi)

### General Information

Synonyms:	angiopoietin 2;angiopoietin-2a;angiopoitin 2;ANG-2;Tie2-ligand;angiopoietin-2B;ANGPT2;AGPT2;ANG2;Angiopoietin-2
Protein Construction:	Lys275-Phe496
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O15123-1
Molecular Weight:	28.4 kDa (predicted). Due to glycosylation, the protein migrates to 30-35 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	1. Immobilized Human ANGPT2, His Tag at 2µg/ml (100µl/well). Dose response curve for Anti-ANGPT2 Antibody, hFc Tag with the EC50 of 9.3ng/ml determined by ELISA (QC Test). 2. Human TIE2, His Tag immobilized on CM5 Chip can bind Human ANGPT2, His Tag with an affinity constant of 2.38 µM as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Angiopoietin-2 (Ang-2; also ANGPT2) is a secreted glycoprotein that plays a complex role in angiogenesis and inflammation. Mature Ang-2 is 478 amino acids in length. Ang2 is widely expressed during development, but it is

restricted postnatally to highly angiogenic tissues such as the placenta, ovaries, and uterus. It is particularly abundant in vascular endothelial cells (EC) where it is stored in intracellular Weibel Palade bodies..

### Reference

Wu X, et al. Angiopoietin-2 as a Biomarker and Target for Immune Checkpoint Therapy[J]. Cancer Immunology Research, 2017, 5(1):17-28.

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