

Datasheet for ABIN6972942

## Angiopoietin 2 Protein (ANGPT2) (AA 275-496) (His tag,AVI tag,Biotin)



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### 2 Images

#### Overview

Quantity:	200 µg
Target:	Angiopoietin 2 (ANGPT2)
Protein Characteristics:	AA 275-496
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Angiopoietin 2 protein is labelled with His tag,AVI tag,Biotin.

#### Product Details

Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	Biotinylated Human Angiopoietin-2 / ANGPT2 Protein, His,Avitag™
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

#### Target Details

Target:	Angiopoietin 2 (ANGPT2)
Alternative Name:	Angiopoietin-2 ( <a href="#">ANGPT2 Products</a> )
Background:	Angiopoietin-2 is also known as ANGPT2, AGPT2, ANG2, and is a secreted glycoprotein that

## Target Details

plays a complex role in angiogenesis and inflammation. 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. Both Ang2 and the related Angiopoietin1 (Ang1) are ligands for the receptor tyrosine kinase Tie 2. Ang2 functions as a proangiogenic factor, although it can also induce EC death and vessel regression. Upon its release from quiescent EC, it regulates vascular remodeling by promoting EC survival, proliferation, and migration and destabilizing the interaction between EC and perivascular cells. Ang2 is required for postnatal vascular remodeling, and it cooperates with Ang1 during lymphatic vessel development. It mediates the upregulation of ICAM1 and VCAM1 on EC, which facilitates the adhesion of leukocytes during inflammation. Ang2 competitively inhibit Ang1-induced endothelial cell responses mediated by Tie2, and reduces vascular integrity. But the role of Ang2 is controversial since the opposite outcomes has been reported in other studies. Over-expression of Ang2 disrupts the vascular remodeling, induce endothelial cell apoptosis, and may play an important regulating role in tumor angiogenesis. Ang2 also promotes the neuronal differentiation and migration of subventricular zone progenitor cells.

Molecular Weight: 29.2 kDa

Pathways: [RTK Signaling](#)

## Application Details

Comment: Ready-to-use Avitag™ biotinylated protein:

The product is exclusively produced using the Avitag™ technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

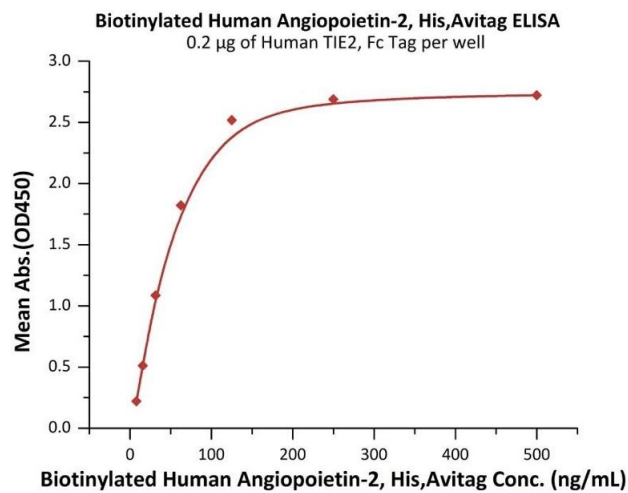
This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

Restrictions: For Research Use only

Handling

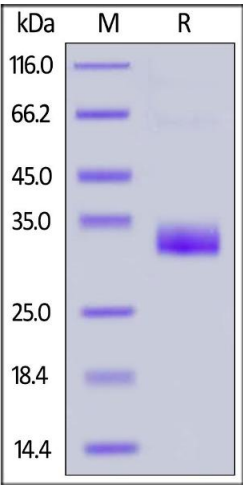
Format:	Lyophilized
Buffer:	20 mM MOPS, 150 mM NaCl, pH 7.5
Storage:	-20 °C

Images



ELISA

**Image 1.** Immobilized Human TIE2, Fc Tag (ABIN6992355) at 2 µg/mL (100 µL/well) can bind Biotinylated Human Angiopoietin-2, His,Avitag (ABIN6972942) with a linear range of 7.8-63 ng/mL (QC tested).



SDS-PAGE

**Image 2.** Biotinylated Human Angiopoietin-2, His,Avitag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95 % .