

ANG-2, Human Recombinant

CATALOG #:	7116-10	10 µg
	7116-50	50 µg
ALTERNATE NAMES:	ANGPT-2	
SOURCE:	CHO cells	
PURITY:	≥ 95% by SDS-PAGE gel and HPLC analyses	
MOL. WEIGHT:	60-70 kDa	
ENDOTOXIN LEVEL:	< 0.1 ng/µg of protein (<1EU/µg).	
FORM:	Lyophilized	
FORMULATION:	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Phosphate, pH 8.0.	
STORAGE CONDITIONS:	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

DESCRIPTION:

ANG-2 binds to the endothelial cell specific receptor Tie2, but, in contrast to ANG-1 does not induce tyrosine phosphorylation. Consequently, ANG-2 modulates ANG-1 activation of Tie2 and, depending on the physiological and biochemical environment, can act either as a n agonist or antagonist of Tie2 induced angiogenesis. The signaling interactions of ANG-1, ANG-2 and Tie2, along with less characterized ANG-3 and ANG-4, are required for embryonic and adult angiogenesis. Physiologically, ANG-1 and ANG-2 are associated with sprouting, tube formation, and structural integrity of newly formed blood vessels. Mature human ANG-2 is a secreted protein containing 480 amino acid residues. ANG-2 is composed of an alpha helix rich “coiled coil” N-terminal domain and fibrinogen like C-terminal domain. ANG-2 exists predominantly in the form of a disulfide-linked dimer.

Recombinant human ANG-2 is a C-terminal histidine tagged glycoprotein which migrates with an apparent molecular mass of 60.0– 70.0 kDa by SDS-PAGE under reducing conditions. Sequencing analysis shows an N-terminal sequence starting with residue 68 (D) of the ANG-2 precursor protein.

BIOLOGICAL ACTIVITY:

Determined by its ability to stimulate tubulogenesis in HUVEC cells using a concentration of 0.2 µg/ml.

AMINO ACID SEQUENCE:

DAPLEYDDSV QRLQVLENIM ENNTQWLMKL ENYIQDNMKK EMVEIQQNAV
 QNQTAVMIEI GTNLLNQTAE QTRKLT DVEA QVLNQTT RLE LQLEHSLST
 NKLEKQILDQ TSEINKLQDK NSFLEKKVLA MEDKHIIQLQ SIKEEKDQLQ VLVSKQNSII
 EELEKKIVTA TVNNSVLQKQ QHDLMETVNN LLTMMSTSNS AKDPTVAKEE
 QISFRDCAEV FKS GHTTNGI YTLTFPNSTE EIKAYCDMEA GGGGWTIIQR
 REDGSVDFQR TWKEYKVGFG NPSGEYWLGN EFVSQLTNQQ RYVLKIH LKD
 WEGNEAYS LY EHFYLSSEEL NYRIHLKGLT GTAGKISSIS QPGNDFSTKD
 GDNDKCICKC SQMLTGGWWF DACGPSNLNG MYYPQRQNTN KFNIGK WYYW
 KGS GYSLKAT TMMIRPADFH HHHHH

RELATED PRODUCTS:

- ANG-1, human recombinant (Cat. No. 7115-10, -50)
- ANGPTL3 (human) Serum ELISA Kit (Cat. No. K4914-100)
- ANGPTL3 (mouse/rat) Serum ELISA Kit (Cat. No. K4915-100)
- ANGPTL6 (human) Serum ELISA Kit (Cat. No. K4916-100)

FOR RESEARCH USE ONLY! Not to be used in humans.