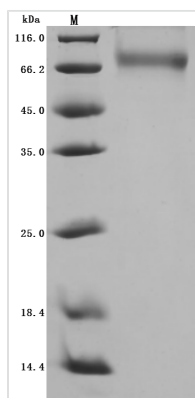


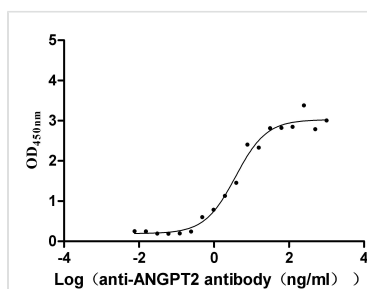


Recombinant Dog Angiopoietin-2 (ANGPT2) (Active)

Product Code	CSB-MP001707DO
Abbreviation	Recombinant Dog ANGPT2 protein (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	A0A8J8
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 µm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Product Type	Recombinant Protein
Immunogen Species	Canis lupus familiaris (Dog) (Canis familiaris)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Dog ANGPT2 at 2 µg/mL can bind anti-ANGPT2 recombinant antibody (CSB-RA001707MA01HU), the EC ₅₀ is 2.836-4.992 ng/mL.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	YNNFRRSMDSIGRRQYQVQHGGSCSYTFLLPETDNCRSPGSYVPNAVQRDAPL DYDDSVQRLQVLENIMENNTQWLIKLENYIQDNMKKEMVEMQQNAVQNQTAV MIEIGTNLLNQTAEQTRKLTDEAQLNQTTRELLQLLEHSLSTNKLEKQILDQT SEINKLQDKNSFLEKKVLDMEDKHIVQLRSIKEEKDQLQVLVSKQNSIIEELEKQ LVTATVNNSVLQKQQHDLMETVHSLTMTISPSKSPKDTFVAKKEEQIYRDCAEV FKSGLTTNGIYTLTFPNSTEEIKAYCDMETSGGGWTVIQRREDGSVDFQRTWK EYKVGFGNPSGEHWLGNEFVFQVTNQQPYVLKIHLKDWEAGNEAYSLEYEHFYL SGEELNYRIHLKGLTGTAGKISSISQPGNDFSTKADNDKCICKCSQMLTGGW WFDACGPSNLNGMYYPQRQNTNKFNGIKWYYWKGSGYSLKGTTMMIRPADF
Source	Mammalian cell
Target Names	ANGPT2
Expression Region	19-495aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-tagged
Mol. Weight	57.2 kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity

Measured by its binding ability in a functional ELISA. Immobilized Dog ANGPT2 at 2 µg/ml can bind anti-ANGPT2 recombinant antibody (CSB-RA001707MA01HU), the EC₅₀ is 2.836-4.992 ng/mL.

Description

This Recombinant Dog Angiopoietin-2 (ANGPT2) was produced in Mammalian cell, where the gene sequence encoding Dog ANGPT2 (19-495aa) was expressed with the C-terminal 6xHis tag. The purity of this ANGPT2 protein was greater than 95% by SDS-PAGE. The activity was validated by its binding ability in a functional ELISA.

The similarity between dog ANGPT2 and human ANGPT2 is very high, reaching 92.13%. The dog ANGPT2 gene encodes 495 amino acids, the first 18 amino acids are signal peptides, and the mature protein has 477 amino acids. ANGPT2 is mainly secreted by endothelial cells. It is a natural competitive antagonist of ANGPT1. It can competitively inhibit the phosphorylation of ANGPT1 to promote TIE2. ANGPT2 is mainly expressed in vascular endothelial cells and can maintain the dynamic of vascular growth and degeneration by inhibiting the activation of ANGPT1 balance. In addition, the expression of ANGPT2 is regulated by a variety of factors such as VEGF, EGF, bFGF, TNFα, etc. Hypoxia can promote the expression of ANGPT2, However, ANGPT1 and TGF-β down-regulated their expression levels. The effect of ANGPT2 on angiogenesis is related to the local microenvironment. In the presence of VEGF, ANGPT2 can antagonize the effect of ANGPT1 on vascular structure stabilization, which is beneficial to vascular sprouting and growth. When VEGF is lacking, ANGPT2 inhibits ANGPT1, which is beneficial to vascular regression.

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.



Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.