Human Angiopoietin-2 / ANG2 Protein (Fc Tag)

Catalog Number: **10691-H02H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

AGPT2, ANG2, ANGPT2

Protein Construction:

A DNA sequence encoding the human Angiopoietin 2 (NP_001138.1) (Met 1-Phe 496) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio-Activity

Measured by its binding ability in a functional ELISA . Immobilized recombinant human Angiopoietin-2 at 10 μg/ml (100 μl/well) can bind Human Tie2 / Fc chimera with a range of 0.2-20 μg/ml .

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Tyr 19

Molecular Mass:

The recombinant human Ang2/Fc is a disulfide-linked homodimeric Protein after removal of the signal pep. The reduced monomer consists of 716 amino acids and predicts a molecular mass of 81.6 kDa. As a result of glycosylation, the rhAng2/Fc monomer migrates as approximately 110-115 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

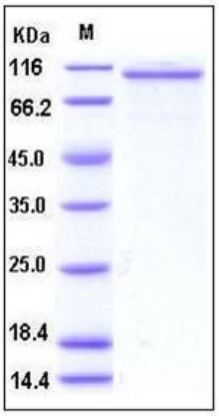
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Angiopoietin 2 (Ang2), closely related to Ang1, is a secreted ligand which binds to the endothelial-specific receptor tyrosine kinase Tie2 with similar affinity. Ang2 is a soluble 70kd growth factor consisting of an amino-terminal coiled-coil domain and a carboxy-terminal fibrinogen-like domain. Tie2 and angiopoietins have been shown to play critical roles in vessel remodeling during angiogenesis, vascular homeostatic responses, and the adult vasculature integrity. Ang2 was initially characterized as an antagonist of Ang1 and Tie2, which 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.

References

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3. Tanaka, S. et al., 1999, J. Clin. Invest. 103: 341-345.
4. Yu, Q. et al., 2001, Am. J. Pathol. 158: 563-570.
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