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Product Information

Angiopoietin-3

Mouse, Recombinant

Expressed in mouse NSO cells

Product Number **A 1229**

Product Description

Recombinant Mouse Angiopoietin-3 (ANG-3) is produced from a DNA sequence encoding the mature mouse angiopoietin-3 (Met1-Ala 509).¹ The protein is expressed in a mouse myeloma cell line, NSO. Based on N-terminal sequencing, the amino-terminus is blocked, consistent with having Gln 22 as the first residue. Mature histidine-tagged mouse ANG-3 has a calculated molecular mass of 58 kDa. Due to glycosylation, this recombinant preparation contains three peptides that migrate with an apparent molecular mass of 85-90 kDa in SDS-PAGE under reducing conditions.

Mouse Angiopoietin-3 (ANG-3),¹ a secreted glycoprotein, is a member of the angiopoietin family. It has the characteristic structural motifs of angiopoietins including the coiled-coiled domain near the amino-terminus and a fibrinogen-like domain at the C-terminus. Mouse angiopoietin-3 cDNA encodes a 509 amino acid precursor protein with a 21 amino acid signal peptide. It shares 47%, 46%, and 54% amino acid sequence identity with mouse ANG-1, Mouse ANG-2, and human ANG-4, respectively. Mouse ANG-3 is believed to be an ortholog of human ANG-4 based on chromosomal localization studies.^{1,2} Mouse ANG-3 is expressed in multiple mouse tissues and is reported to be a Tie-2 antagonist. It is likely that mouse ANG-3 may exert agonist or antagonist activities depending on the cell context.^{1,3,4}

Reagent

Recombinant Mouse Angiopoietin-3 is supplied as approximately 25 µg of protein lyophilized from a 0.2 µm filtered solution in 50 mM Tris citrate, 0.5 M NaCl, pH 6.5, containing 1.25 mg bovine serum albumin.

Storage/Stability

Store at -20 °C. Upon reconstitution, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

Preparation Instructions

Reconstitute the contents of the vial using 0.2 µm filtered phosphate buffered saline (PBS) containing at least 0.1% human serum albumin or bovine serum albumin. Prepare a stock solution of at least 10 µg/ml.

Product Profile

Recombinant Mouse Angiopoietin-3 is measured by its ability to bind immobilized Tie-2/Fc in ELISA.

Purity: > 90% as determined by SDS-PAGE, visualized by silver stain.

Endotoxin level is < 1.0 EU (endotoxin units)/µg protein as determined by the LAL (Limulus amoebocyte lysate) method.

References

1. Valenzuela, D.M., et al., Proc. Natl. Acad. Sci. USA, **96**, 1904-1909 (1999).
2. Nishimura, M., et al., FEBS Lett., **448**, 254-256 (1999).
3. Jones, N., et al., Nat. Rev. Mol. Cell Biol., **2**, 257-267 (2001).
4. Teichert-Kuliszewska, K., et al., Cardiovasc. Res., **49**, 659-670 (2001).

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