Recombinant Mouse Angiopoietin-3

Catalog Number: 738-AN/CF

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived

Mouse Angiopoietin-3 (Gln22 - Ala509) Accession # Q9WVH6	IEGR	GGGSGGGSGGGS	10-His tag

N-terminus C-terminus

N-terminal Sequence Analysis No results obtained: Gln22 predicted

Structure / Form Oligomer

Predicted Molecular Mass 58 kDa

SPECIFICATIONS

SDS-PAGE 85-90 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
Immobilized rmTie-2/Fc Chimera at 4 µg/mL (100 µL/well) can bind rmAngiopoietin-3 with a linear range of 5-100 ng/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in Tris-Citrate and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Mouse angiopoietin-3 (ANG-3) (1), is a secreted glycoprotein belonging to 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 ANG-3 cDNA encodes a 509 amino acid (aa) precursor protein with a 21 aa signal peptide. It shares 47%, 46% and 54% aa sequence identity with mouse ANG-1, mouse ANG-2 and human ANG-4, respectively. Although the sequence homology is much higher between the human and mouse counterparts for ANG-1 (97%) and ANG-2 (85%), mouse ANG-3 is believed to be an ortholog of human ANG-4 based on chromosomal localization studies (1, 2). Human ANG-4 is highly expressed in lung and in cultured human umbilical vein endothelial cells (HUVECs). In contrast, mouse ANG-3 is expressed in multiple mouse tissues. Human ANG-4 is an agonist that can bind and activate Tie-2, a receptor tyrosine kinase with immunoglobulin and epidermal growth factor homology domains expressed primarily on endothelial cells and early hematopoietic cells (2, 3). Mouse ANG-3 has been reported to be a Tie-2 antagonist. It is likely that mouse ANG-3, like ANG-2, may exert agonist or antagonist activities depending on the cell context (1, 3, 4).

References:

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

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449