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ProductInformation

Monoclonal Anti-Angiopoietin-3
Clone 113504
Purified Rat Immunoglobulin

Product Number **A 0351**

Product Description

Monoclonal Anti-Mouse Angiopoietin-3 (rat IgG2B isotype) is produced from a mouse hybridoma elicited from a rat immunized with purified recombinant mouse angiopoietin-3 expressed in *Escherichia coli*. The antibody is purified from the IgG fraction of ascities fluid using protein G.

Monoclonal Anti-Mouse Angiopoietin-3 (Ang3) recognizes recombinant mouse angiopoietin-3 by ELISA and immunoblotting. The antibody shows less than 1% cross-reactivity with recombinant human angiopoietin-1, angiopoietin-2, angiopoietin-4, and angiopoietin-like factor in immunoblotting assays.

Angiopoietin-3 (ANG-3), also called ANG-4,[1] might represent counterparts in mouse and human. Based on chromosomal analysis, mouse ANG-3 is thought to be an ortholog of human ANG-4.[1,2] Human ANG-4 acts as an agonist that binds and activates Tie-2, whereas mouse ANG-3 is likely to be a Tie-2 antagonist, exerting agonist or antagonist activities depending on the cell context.[1,3,4] Mouse ANG-3 is expressed in various mouse tissues.

Mouse angiopoietin-3 is a secreted glycoprotein and member of the angiopoietin family.[1] It has an N-terminal coiled-coil domain and a C-terminal fibrinogen-like domain. The coiled coil domains mediate ligand homo-oligomerization and the fibrinogen-like domains mediate ligand activity. Recombinant mouse angiopoietin-3 has a calculated molecular mass of 58 kDa. Due to glycosylation, the recombinant protein (containing 3 peptides) has an apparent molecular mass of 85-90 kDa in SDS-PAGE under reducing conditions. Mouse angiopoietin-3 shares 47%, 46%, and 54% sequence identity with mouse ANG-1, mouse ANG-2, and human ANG-4, respectively.

Reagent

Monoclonal Anti-Angiopoietin-3 is supplied as 500 µg of antiserum lyophilized from a 0.2 µm filtered solution of phosphate buffered saline (PBS).

Preparation Instructions

To one vial of lyophilized powder, add 1 ml of sterile phosphate buffered saline (PBS) to produce a 0.5 mg/ml stock solution of antibody.

Storage/Stability

Prior to reconstitution, store at –20 °C. Reconstituted product may be stored at 2-8 °C for at least one month. For prolonged storage, freeze in working aliquots at –20 °C. Avoid repeated freezing and thawing. Do not store in frost-free freezer.

Product Profile

For immunoblotting, a working antibody concentration of 1 to 2 µg/ml is recommended. The detection limit for recombinant mouse angiopoietin-3 is approximately 25 ng/lane under non-reducing and reducing conditions.

For ELISAs, a working antibody concentration of 0.5-1.0 µg/ml is recommended. The detection limit for recombinant mouse angiopoietin-3 is approximately 3 ng/well.

Note: In order to obtain the best results in various techniques and preparations we recommend determining the optimal working dilutions by titration.

Endotoxin level is <10 ng/mg antibody as determined by the LAL (Limulus amebocyte 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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