



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

Monoclonal Anti-Angiopoietin-4

Clone 156215

Purified Mouse Immunoglobulin

Product Number **A 0854**

Product Description

Monoclonal Anti-Angiopoietin-4 (mouse IgG1 isotype) is purified from 156215 mouse hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, NSO-derived, recombinant human Angiopoietin-4 (ANG-4). The antibody is purified by Protein G affinity chromatography.

Monoclonal Anti-Angiopoietin-4 detects recombinant human angiopoietin-4 by immunoblotting and ELISA. The antibody shows no cross-reactivity with recombinant human angiopoietin-1, recombinant human angiopoietin-2, recombinant human angiopoietin-X, and recombinant human AngPTL3 in ELISAs.

Human Angiopoietin-4 (ANG-4),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 carboxy-terminus. Mouse ANG-3 is believed to be an ortholog of human ANG4 based on chromosomal localization studies.² Human ANG4 is highly expressed in lung and in cultured human umbilical vein endothelial cells (HUVACs). 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}

Reagent

Monoclonal Anti-Angiopoietin-4 is supplied as approximately 500 µg of antiserum lyophilized from a 0.2 µm filtered solution of phosphate buffered saline with 5% trehalose.

Storage/Stability

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

Preparation Instructions

To one vial of lyophilized powder, add 1 ml of 0.2 µm filtered solution of phosphate buffered saline to produce a 0.5 mg/ml stock solution of antibody.

Product Profile

For immunoblotting, a working antibody concentration of 1-2 µg/ml is recommended. The detection limit for recombinant human angiopoietin-4 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 human angiopoietin-4 is approximately 25 ng/well.

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

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).

KAA 06/04

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.