Product Information

Anti-Angiopoietin-1
produced in goat, affinity isolated antibody

Catalog Number A1104

Synonym: Anti-ANG-1

Product Description
Anti-Angiopoietin-1 is produced in goat using as immunogen a purified recombinant human angiopoietin-1 (ANG-1), expressed in mouse NSO cells. Human ANG-1 specific IgG is purified by human ANG-1 affinity chromatography.

Anti-Angiopoietin-1 detects recombinant human angiopoietin-1 by immunoblotting, immunohistochemistry, and ELISA. The antibody shows less than 1% cross-reactivity with recombinant human angiopoietin-2, recombinant human angiopoietin-4, and recombinant human angiopoietin-like factor/CDT6 in ELISA.

Angiopoietin-1 (ANG-1) activates Tie-2 signaling on endothelial cells to promote chemotaxis, cell survival, cell sprouting, vessel growth, and stabilization. ANG-1 is closely related to ANG-2. Both ANG-1 and ANG-2, with their receptor Tie-2, play critical roles in embryonic vasculogenesis and angiogenesis, adult angiogenic sprouting, and endothelial cell proliferation. ANG-1 and ANG-2 have an amino-terminal coiled-coil domain and a carboxyl-terminal fibrinogen-like domain. The coiled coil domain mediates ligand homo-oligomerization and the fibrinogen-like domain mediates ligand activity. ANG-1 is secreted by endothelial cells and is a specific ligand of the Tie-2 receptor, which is expressed on endothelial cells and early hematopoietic cells. Both ANG-1 and ANG-2 induce phosphorylation of expressed receptors on NIH3T3 fibroblasts stably expressing transfected Tie-2. However, only ANG-1 induces a chemotactic response and Tie-2 phosphorylation on endothelial cells.

Reagent
Supplied lyophilized from a 0.2 µm filtered solution of phosphate buffered saline with 5% trehalose.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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 0.1 mg/mL stock solution of antibody.

Product Profile
Immunoblotting: a working antibody concentration of 0.1-0.2 µg/mL is recommended. The detection limit for recombinant human angiopoietin-1 is ~25 ng/lane and 5 ng/lane under non-reducing and reducing conditions, respectively.

ELISA: a working concentration of 0.5-1.0 µg/mL is recommended. The detection limit for recombinant human angiopoietin-1 is ~0.1 ng/well.

Immunohistochemistry: a working concentration of 5-15 µg/mL is recommended using cells and tissues in a chromogenic detection system.

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

References


KAA,PHC 02/09-1