

Product Specification Sheet

Angiopoietin-4 (Ang-4) Antibodies

Cat. ANG41-M Mouse monoclonal Anti-Human Ang-4 IgG # 1 **SIZE:** 100 ug

Cat. ANG41-C Recombinant purified Human Ang-1 protein for WB **SIZE:** 100 ul

Embryonic vascular system undergoes a series of complex, highly regulated series of events involving differentiation, migration and association of primitive endothelial cells. This process is termed vasculogenesis. A further remodeling of the primitive vascular system forms the mature cardiovascular system. This process is known as **angiogenesis** (sprouting of new capillary vessels from pre-existing vasculature). Angiogenesis accounts for the formation of vasculature into previously avascular organs such as brain and kidney. Angiogenic activity in the adult is required during the normal tissue repair, and for the remodeling of the female reproductive organs (ovulation and placental development).

A homology-based cloning approach has led to the identification of **angiopoietin-3** (Angpt3, 509 aa, chromosome 2) in mouse, and **angiopoietin-4** (ANGPT4, 504 aa, chromosome 20p13) in human. Although angiopoietin-3 and angiopoietin-4 are more structurally diverged from each other than are the mouse and human versions of angiopoietin-1 and angiopoietin-2, they appear to represent the mouse and human counterparts of the same gene locus, as revealed in chromosomal localization studies of all the angiopoietins in mouse and human. Angiopoietin-3 was expressed as multiple mouse tissues, whereas angiopoietin-4 was expressed primarily in human lung. It is also suggested that angiopoietin-3 acts as an antagonist, whereas angiopoietin-4 functions as an agonist.

Source of Antigen and Antibodies

Antigen	Recombinant Human Ang-4 protein
Ab Host/type	Mouse, monoclonal, IgG1 Purified IgG (cat #ANG41-M)
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Human Ang-4 (1-503 aa) was expressed in NS0 cells as His-tag (C-terminal) and purified (>95%). Recombinant protein calculated mol wt is ~57 kDa but the protein migrates as 60-100 kDa band (reducing SDS-PAGE) due to glycosylation. For **WB +ve control**, **Cat # ANG41-C**, is formulated in SDS-PAGE sample buffer (reduced). This preparation is **biologically inactive**. It is not suitable for ELISA or other applications where native protein is required. It is supplied in 100 ul/vial. For WB, heat once and load 10 ul/lane and visualize with appropriate antibodies (#ANG41-M etc).. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the control solution prior to heating and loading on gels. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Store frozen in suitable aliquots. Do not freeze, thaw, or heat repeatedly.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

Reconstitute powder in PBS at 1 mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -200C and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-3 ug/ml using ECL. The predicted size of Ang-2 is ~55 kDa. Like Ang-1, its size may appear higher on PAGE gels due to glycosylation.

ELISA (0.1-1 ug/ml ins direct ELISA or for to capture Ang-2 in ELISA.

Histochemistry & Immunofluorescence: not tested.

Specificity & Cross-reactivity

The ANG41-M reacts with human Ang-4. No significant reactivity is observed with other Ang (1, 2, 4). Antibody cross-reactivity in various species has not been studied. Recombinant purified human Ang-4 protein is available for control studies.

General References:

Nishimura M (1999) FEBS Lett. 448, 254-256; Kim I (1999) FEBS Lett. 443, 353-356; Valenzuela DM (1999) PNAS 96, 1904-1909.

*This product is for in vitro research use only.

Related material available from ADI

Antibodies to Ang-1, Ang-2, Ang-2 ELISA kit

ANG41-M-C

71221A

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi - 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com