Ang-2 (F-1): sc-74403

**BACKGROUND**

Tie-1 and Tie-2 (also designated Tek) are novel cell surface receptor tyrosine kinases. The extracellular domain of Tie-2 has an unusual multidomain structure consisting of a cluster of three epidermal growth factor homology motifs localized between two immunoglobulin-like loops, which are followed by three Fibrinogen type III repeats next to the transmembrane region. Angiopoietin-1 (Ang-1) is a secreted ligand for Tie-2. Preliminary biochemical analyses of Ang-1 reveal a potential Fibrinogen-like domain at the carboxy terminus and coiled-coil regions in the amino terminus. Ang-1 is an angiogenic factor that is thought to be involved in endothelial development. A related protein, angiopoietin-2 (Ang-2), has been identified as a naturally occurring antagonist of Ang-1 activation of Tie-2. In adult tissue, Ang-2 expression seems to be restricted to sites of vascular remodeling.

**CHROMOSOMAL LOCATION**

Genetic locus: ANGPT2 (human) mapping to 8q23.1.

**SOURCE**

Ang-2 (F-1) is a mouse monoclonal antibody raised against amino acids 171-240 mapping within an internal region of the mature chain of Ang-2 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ang-2 (F-1) is available conjugated to agarose (sc-74403 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74403 HRP), 200 μg/ml, for WB, IHCIP and ELISA; to either phycocerythrin (sc-74403 PE), fluorescein (sc-74403 FITC), Alexa Fluor® 488 (sc-74403 AF488), Alexa Fluor® 546 (sc-74403 AF546), Alexa Fluor® 594 (sc-74403 AF594) or Alexa Fluor® 647 (sc-74403 AF647), 200 μg/ml, for WB (RGB), IF, IHCIP and FCM; and to either Alexa Fluor® 680 (sc-74403 AF680) or Alexa Fluor® 790 (sc-74403 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Ang-2 (F-1) is recommended for detection of precursor and mature Ang-2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ang-2 siRNA (h): sc-39305, Ang-2 shRNA Plasmid (h): sc-39305.SH and Ang-2 shRNA (h) Lentiviral Particles: sc-39305-V.

Molecular Weight of Ang-2 glycosylation: 62-70 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, TF-1 cell lysate: sc-2412 or HEL 92.1.7 cell lysate: sc-2270.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

Ang-2 (F-1) HRP: sc-74403 HRP. Direct western blot analysis of Ang-2 expression in HUV-EC-C (A) and TF-1 (B) whole cell lysates.

Ang-2 (F-1) sc-74403. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

**SELECT PRODUCT CITATIONS**


2. Bernsmeier, C., et al. 2015. Patients with acute-on-chronic liver failure have increased numbers of regulatory immune cells expressing the receptor tyrosine kinase MERTK. Gastroenterology 148: 603-615.


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.