SANTA CRUZ BIOTECHNOLOGY, INC.

RECA-1 (RECA-1): sc-52665

BACKGROUND

The endothelium represents the layer of thin specialized epithelium made up of a simple squamous layer of cells that line the interior surface of blood vessels to form an interface between circulating blood in the lumen and the rest of the vessel wall. Endothelial cells line the entire circulatory system and are involved in many aspects of vascular biology, including blood clotting, inflammation, swelling, vasoconstriction, vasodilation and atherosclerosis. Endothelial cells also control the passage of materials and the transit of white blood cells into and out of the bloodstream. In some organs, endothelial cells are highly differentiated to perform more specialized filtering functions. Examples of such unique endothelial structures include the renal glomerulus and the blood-brain barrier. RECA-1, also designated rat endothelial cell antigen-1, is a cell surface antigen which is expressed by all rat endothelial cells.

REFERENCES

1. Drouet, L., et al. 1988. Serum angiotensin-converting enzyme: an endothelial cell marker. Application to thromboembolic pathology. J. Lab. Clin. Med. 112: 450-457.
2. Goerdt, S., et al. 1990. Characterization and differential expression of an endothelial cell-specific surface antigen in continuous and sinusoidal endothelial, in skin vascular lesions and *in vitro*. Exp. Cell Biol. 57: 185-192.

SOURCE

RECA-1 (RECA-1) is a mouse monoclonal antibody raised against peripheral and mesenteric lymph nodes of AO rat origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RECA-1 (RECA-1) is recommended for detection of RECA-1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Positive Controls: F9 cell lysate: sc-2245.

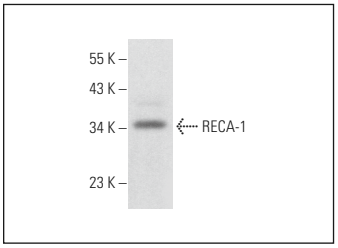
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

STORAGE

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

DATA



RECA-1 (RECA-1): sc-52665. Western blot analysis of RECA-1 expression in F9 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Kordes, C., et al. 2013. Hepatic stellate cells support hematopoiesis and are liver-resident mesenchymal stem cells. Cell. Physiol. Biochem. 31: 290-304.
2. Camós, S., et al. 2014. The high-mobility group I-Y transcription factor is involved in cerebral ischemia and modulates the expression of angiogenic proteins. Neuroscience 269: 112-130.
3. Wertheim, B.M., et al. 2019. Isolating pulmonary microvascular endothelial cells *ex vivo:* implications for pulmonary arterial hypertension, and a caution on the use of commercial biomaterials. PLoS ONE 14: e0211909.
4. Ding, Y., et al. 2019. Astrogliosis inhibition attenuates hydrocephalus by increasing cerebrospinal fluid reabsorption through the glymphatic system after germinal matrix hemorrhage. Exp. Neurol. 320: 113003.
5. Man, W., et al. 2021. A multi-modal delivery strategy for spinal cord regeneration using a composite hydrogel presenting biophysical and biochemical cues synergistically. Biomaterials 276: 120971.
6. Oliveira, L.M., et al. 2022. Regulation of blood vessels by ATP in the ventral medullary surface in a rat model of Parkinson's disease. Brain Res. Bull. 187: 138-154.
7. Wu, W., et al. 2023. Supramolecular hydrogel microspheres of platelet-derived growth factor mimetic peptide promote recovery from spinal cord injury. ACS Nano 17: 3818-3837.
8. Suematsu, Y., et al. 2023. Hepatocyte growth factor pretreatment boosts functional recovery after spinal cord injury through human iPSC-derived neural stem/progenitor cell transplantation. Inflamm. Regen. 43: 50.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.