SANTA CRUZ BIOTECHNOLOGY, INC.

Stabilin-1 (4G9): sc-293254

BACKGROUND

Stabilin-1 (also known as MS-1 antigen or FEEL1) is a large, transmembrane receptor protein that is involved in cell adhesion, angiogenesis, lymphocyte homing and receptor scavenging. It may also be involved in defense against bacterial infections by binding to both Gram-positive and Gram-negative bacteria. Stabilin-1 is primarily expressed on sinusoidal endothelial cells of liver, spleen, lymph node and placenta. It contains tandem fasciclin domains, epidermal growth factor-like repeats and a C-type lectin-like hyaluronan-binding Link module, which functions as an endocytic receptor for acetylated low density lipoprotein and advanced glycation end products. Stabilin-1 has also been reported to mediate both homing of leukocytes across lymph node high endothelial venules and adhesion of metastatic tumor cells to peritumoral lymphatic vessels.

REFERENCES

1. Politz, O., et al. 2002. Stabilin-1 and -2 constitute a novel family of fasciclin-like hyaluronan receptor homologues. Biochem. J. 362: 155-164.
2. Falkowski, M., et al. 2003. Expression of Stabilin-2, a novel fasciclin-like hyaluronan receptor protein, in murine sinusoidal endothelia, avascular tissues, and at solid/liquid interfaces. Histochem. Cell Biol. 120: 361-369.
3. Kzhyshkowska, J., et al. 2004. Stabilin-1 localizes to endosomes and the *trans*-Golgi network in human macrophages and interacts with GGA adaptors. J. Leukoc. Biol. 76: 1151-1161.
4. Prevo, R., et al. 2004. Rapid plasma membrane-endosomal trafficking of the lymph node sinus and high endothelial venule scavenger receptor/homing receptor Stabilin-1 (FEEL-1/CLEVER-1). J. Biol. Chem. 279: 52580-52592.
5. McCourt, P.A., et al. 2004. The liver sinusoidal endothelial cell hyaluronan receptor and its homolog, Stabilin-1-their roles (known and unknown) in endocytosis. Comp. Hepatol. 3: S24.

CHROMOSOMAL LOCATION

Genetic locus: STAB1 (human) mapping to 3p21.1.

SOURCE

Stabilin-1 (4G9) is a mouse monoclonal antibody raised against amino acids 1804-1902 of Stabilin-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Stabilin-1 (4G9) is recommended for detection of Stabilin-1 of human 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)], 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).

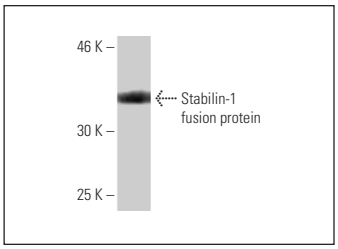
Suitable for use as control antibody for Stabilin-1 siRNA (h): sc-45784, Stabilin-1 shRNA Plasmid (h): sc-45784-SH and Stabilin-1 shRNA (h) Lentiviral Particles: sc-45784-V.

Molecular Weight of Stabilin-1 isoform1/2: 275/87 kDa.

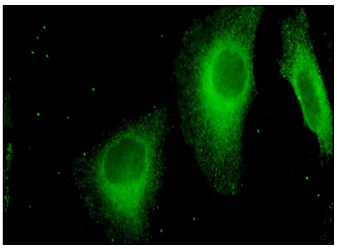
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Stabilin-1 (4G9): sc-293254. Western blot analysis of human recombinant Stabilin-1 fusion protein.



Stabilin-1 (4G9): sc-293254. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Kwon, M., et al. 2019. Not CD68 but Stabilin-1 expression is associated with the risk of recurrence in patients with oral cavity squamous cell carcinoma. Head Neck 41: 2058-2064.
2. Lu, L., et al. 2021. A core omnigenic non-coding trait governing Dex-induced osteoporotic effects identified without DEXA. Front. Pharmacol. 12: 750959.

RESEARCH USE

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