SANTA CRUZ BIOTECHNOLOGY, INC.

RHAMM (C-9): sc-515222

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hyaluronic acid (HA) is a nonsulfated glycosaminoglycan that regulates cell adhesion and migration. HA effects are mediated through two receptors, CD44 (also designated HCAM) and the receptor of hyaluronic acid mediated motility (RHAMM). RHAMM, also designated intracellular hyaluronic acid binding protein (IHABP) and CD168, is a matrix receptor, which is linked to the plasma membrane by a GPI anchor and regulates cell motility. RHAMM expression is upregulated in malignant lymphoid tissues and is subsequently implicated in tumor progression and metastasis formation, as well as signal transduction. Although still unclear, RHAMM is thought to exist as several isoforms ranging in size. A variant isoform, designated v4, is a protein that when over-expressed, is thought to be the cause of transformation and metastasis formation in fibroblasts.

REFERENCES

1. Hardwick, C., et al. 1992. Molecular cloning of a novel hyaluronan receptor that mediates tumor cell motility. J. Cell Biol. 117: 1343-1350.
2. Turley, E.A., et al. 1993. Expression and function of a receptor for hyaluronan-mediated motility on normal and malignant B lymphocytes. Blood 81: 446-453.

CHROMOSOMAL LOCATION

Genetic locus: HMMR (human) mapping to 5q34; Hmmr (mouse) mapping to 11 A5.

SOURCE

RHAMM (C-9) is a mouse monoclonal antibody raised against amino acids 1-90 mapping at the N-terminus of RHAMM of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RHAMM (C-9) is recommended for detection of RHAMM of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RHAMM siRNA (h): sc-40181, RHAMM siRNA (m): sc-40182, RHAMM shRNA Plasmid (h): sc-40181-SH, RHAMM shRNA Plasmid (m): sc-40182-SH, RHAMM shRNA (h) Lentiviral Particles: sc-40181-V and RHAMM shRNA (m) Lentiviral Particles: sc-40182-V.

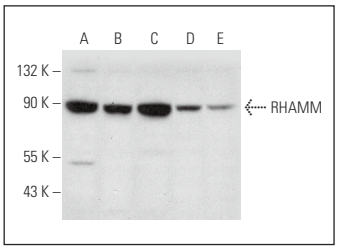
Molecular Weight of RHAMM: 85-90 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, MDA-MB-435S whole cell lysate: sc-364184 or T-47D cell lysate: sc-2293.

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.

DATA



RHAMM (C-9): sc-515222. Western blot analysis of RHAMM expression in HuT 78 (**A**), MDA-MB-435S (**B**), T-47D (**C**), MCF7 (**D**) and SK-BR-3 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tsubaki, M., et al. 2021. Rhosin suppressed tumor cell metastasis through inhibition of Rho/YAP pathway and expression of RHAMM and CXCR4 in melanoma and breast cancer cells. Biomedicines 9: 35.
2. He, L., et al. 2023. HMMR alleviates endoplasmic reticulum stress by promoting autophagolysosomal activity during endoplasmic reticulum stress-driven hepatocellular carcinoma progression. Cancer Commun. 43: 981-1002.

STORAGE

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

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.