

RHAMM (H-8): sc-515221



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.

CHROMOSOMAL LOCATION

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

SOURCE

RHAMM (H-8) 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 IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RHAMM (H-8) is available conjugated to agarose (sc-515221 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515221 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515221 PE), fluorescein (sc-515221 FITC), Alexa Fluor® 488 (sc-515221 AF488), Alexa Fluor® 546 (sc-515221 AF546), Alexa Fluor® 594 (sc-515221 AF594) or Alexa Fluor® 647 (sc-515221 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515221 AF680) or Alexa Fluor® 790 (sc-515221 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

RHAMM (H-8) 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.

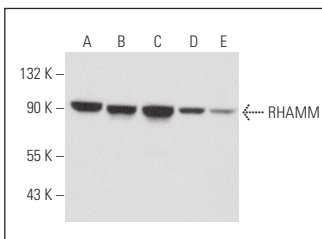
Molecular Weight of RHAMM: 85-90 kDa.

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

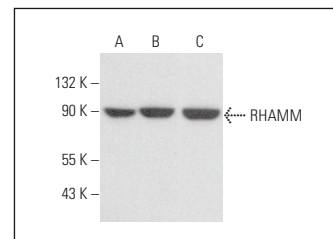
STORAGE

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

DATA



RHAMM (H-8): sc-515221. 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.



RHAMM (H-8): sc-515221. Western blot analysis of RHAMM expression in T-47D (A), K-562 (B) and TF-1 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Jiang, Z., et al. 2021. Hyaluronan-mediated motility receptor governs chromosome segregation by regulating microtubules sliding within the bridging fiber. *Adv. Biol.* 5: e2000493.
- Carvalho, A.M., et al. 2021. Co-localization and crosstalk between CD44 and RHAMM depend on hyaluronan presentation. *Acta Biomater.* 119: 114-124.
- Wang, F., et al. 2021. Temporal proteomics reveal specific cell cycle oncoprotein downregulation by p97/VCP inhibition. *Cell Chem. Biol.* 29: 517-529.e5.
- Carvalho, A.M., et al. 2022. RHAMM expression tunes the response of breast cancer cell lines to hyaluronan. *Acta Biomater.* 146: 187-196.
- Hamester, F., et al. 2022. Key role of hyaluronan metabolism for the development of brain metastases in triple-negative breast cancer. *Cells* 11: 3275.
- 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.
- Berdiaki, A., et al. 2023. RHAMM/hyaluronan inhibit β-catenin degradation, enhance downstream signaling, and facilitate fibrosarcoma cell growth. *Mol. Biol. Rep.* 50: 8937-8947.

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.