

HAI-2 (H-9): sc-398119

BACKGROUND

Tissue damage, such as hepatic and renal injury, initiates hepatocyte growth factor activator (HGFAC)-mediated limited proteolytic activation of the inactive single-chain precursor form of HGF. Initially, HGFAC is produced as a precursor protein, which is activated by limited proteolysis and is neutralized by specific inhibitors known as HGF activator inhibitors, designated HAIs. HAIs belong to the Kunitz-type serine protease inhibitor family. HAIs target HGF activator and are involved in the regulation of proteolytic activation of HGF in injured tissues. Human HAI-1 transcript is expressed in various human tissues, such as adult placenta, kidney, pancreas, prostate and small intestine, and fetal kidney and lung. It translates into a 478 amino acid protein. The human HAI-2 gene maps to chromosome 19q13.1 and encodes a 252 amino acid protein, also designated human placental bikunin or kop (Kunitz domain containing protein over-expressed in pancreatic cancer). HAI-1 and HAI-2 are produced in membrane-associated forms, which are secreted as active, proteolytically truncated proteins.

REFERENCES

1. Shimomura, T., et al. 1997. Hepatocyte growth factor activator inhibitor, a novel Kunitz-type serine protease inhibitor. *J. Biol. Chem.* 272: 6370-6376.
2. Marlor, C.W., et al. 1997. Identification and cloning of human placental bikunin, a novel serine protease inhibitor containing two Kunitz domains. *J. Biol. Chem.* 272: 12202-12208.
3. Kawaguchi, T., et al. 1997. Purification and cloning of hepatocyte growth factor activator inhibitor type 2, a Kunitz-type serine protease inhibitor. *J. Biol. Chem.* 272: 27558-27564.

CHROMOSOMAL LOCATION

Genetic locus: Spint2 (mouse) mapping to 7 B1.

SOURCE

HAI-2 (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 101-134 within an internal region of HAI-2 of mouse 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.

HAI-2 (H-9) is available conjugated to agarose (sc-398119 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398119 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398119 PE), fluorescein (sc-398119 FITC), Alexa Fluor® 488 (sc-398119 AF488), Alexa Fluor® 546 (sc-398119 AF546), Alexa Fluor® 594 (sc-398119 AF594) or Alexa Fluor® 647 (sc-398119 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398119 AF680) or Alexa Fluor® 790 (sc-398119 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398119 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

HAI-2 (H-9) is recommended for detection of precursor and mature HAI-2 of mouse and rat 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 HAI-2 siRNA (m): sc-39557, HAI-2 shRNA Plasmid (m): sc-39557-SH and HAI-2 shRNA (m) Lentiviral Particles: sc-39557-V.

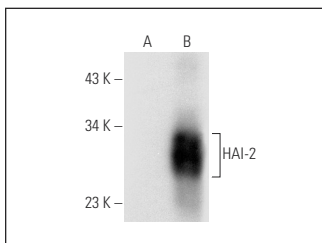
Molecular Weight of HAI-2: 23-31 kDa.

Positive Controls: HAI-2 (m): 293T Lysate: sc-126933 or mouse ileum tissue extract.

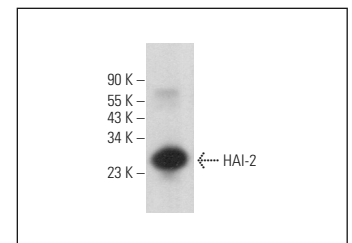
RECOMMENDED SUPPORT REAGENTS

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



HAI-2 (H-9): sc-398119. Western blot analysis of HAI-2 expression in non-transfected (A) and mouse HAI-2 transfected: sc-117752 (A) and mouse HAI-2 transfected: sc-126933 (B) 293T whole cell lysates.



HAI-2 (H-9): sc-398119. Western blot analysis of HAI-2 expression in mouse ileum tissue extract.

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.