Matriptase (D-7): sc-365482

**BACKGROUND**

Matriptase (also known as MT-SP1, ST14, prostatin and epipithin) is a tumor-associated type II transmembrane serine protease that is highly expressed in many human cancer-derived cell lines and is implicated in extracellular matrix remodeling, tumor growth and metastasis. Matriptase performs pleiotropic functions in the development of the epidermis, hair follicles and cellular immune system. Sphingosine 1 phosphate (S1P, SPP), present in serum-derived lipoproteins, activates Matriptase while Matriptase activates both urokinase-type plasminogen activator and hepatocyte growth factor (HGF). Hepatocyte growth factor activator inhibitor type 1 (HAI-1) is a Kunitz-type serine protease inhibitor identified as a strong inhibitor of Matriptase and HGF. Advanced-stage ovarian tumors that express Matriptase are more likely to do so in the absence of its inhibitor, HAI-1, indicating that an imbalance in the Matriptase: HAI-1 ratio could be important in the development of advanced disease.

**CHROMOSOMAL LOCATION**

Genetic locus: ST14 (human) mapping to 11q24.3.

**SOURCE**

Matriptase (D-7) is a mouse monoclonal antibody raised against amino acids 81-350 mapping within an N-terminal extracellular domain of Matriptase 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.

Matriptase (D-7) is available conjugated to agarose (sc-365482 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365482 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycocyanin (sc-365482 PE), fluorescein (sc-365482 FITC), Alexa Fluor® 488 (sc-365482 AF488), Alexa Fluor® 546 (sc-365482 AF546), Alexa Fluor® 594 (sc-365482 AF594) or Alexa Fluor® 647 (sc-365482 AF647), 200 µg/ml, for WB (RGB), IF, HCP and FCM; and to either Alexa Fluor® 680 (sc-365482 AF680) or Alexa Fluor® 790 (sc-365482 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Matriptase (D-7) is recommended for detection of Matriptase of 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), immunohistochemistry (including paraffin-embedded sections) (start-ing 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 Matriptase siRNA (h): sc-43911, Matriptase shRNA Plasmid (h): sc-43911-SH and Matriptase shRNA (h) Lentiviral Particles: sc-43911-V.

Molecular Weight of Matriptase: 70 kDa.

Positive Controls: Raji whole cell lysate: sc-364236 or BJAB whole cell lysate: sc-2207.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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-IgG BP-FITC: sc-516140 or m-IgG 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-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

Matriptase (D-7): sc-365482. Western blot analysis of Matriptase expression in Raji (A) and BJAB (B) whole cell lysates.

Matriptase (D-7): sc-364242. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine (A) and human colon (B) tissue showing membrane and cytoplasmic staining of glandular cells.

**SELECT PRODUCT CITATIONS**


**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.