SANTA CRUZ BIOTECHNOLOGY, INC.

TMPRSS11A (G-13): sc-165752



BACKGROUND

TMPRSS11A (transmembrane protease serine 11A), also known as ECRG1 (esophageal cancer-susceptibility gene 1 protein), HATL1 (airway trypsinlike protease 1) or HESP (epidermal type-II transmembrane serine protease), is a 421 amino acid single-pass type II membrane protein that belongs to the peptidase S1 family and exists as 2 alternatively spliced isoforms. TMPRSS11A contains one peptidase S1 domain, one SEA domain and may interact with Miz-1. As a probable serine protease, TMPRSS11A inhibits cell growth and induces G₁ cell cycle arrest. While expressed in esophagus, liver, colon and lung, TMPRSS11A is down-regulated in esophageal cancers. The gene that encodes TMPRSS11A consists of approximately 54,756 bases and maps to human chromosome 4q13.2.

REFERENCES

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- Zhao, N., et al. 2004. Induction of G₁ cell cycle arrest and P15INK4b expression by ECRG1 through interaction with Miz-1. J. Cell. Biochem. 92: 65-76.
- 3. Li, Y., et al. 2006. Identification of a novel polymorphism Arg290GIn of esophageal cancer related gene 1 (ECRG1) and its related risk to esophageal squamous cell carcinoma. Carcinogenesis 27: 798-802.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611704. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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- 7. Bachmann, K., et al. 2009. Polymorphism Arg290Arg in esophageal-cancerrelated gene 1 (ECRG1) is a prognostic factor for survival in esophageal cancer. J. Gastrointest. Surg. 13: 181-187.
- Li, L.W., et al. 2011. A novel tumor suppressor gene ECRG4 interacts directly with TMPRSS11A (ECRG1) to inhibit cancer cell growth in esophageal carcinoma. BMC Cancer 11: 52.

CHROMOSOMAL LOCATION

Genetic locus: Tmprss11a (mouse) mapping to 5 E1.

SOURCE

TMPRSS11A (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TMPRSS11A of mouse origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165752 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMPRSS11A (G-13) is recommended for detection of TMPRSS11A of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TMPRSS11A (G-13) is also recommended for detection of TMPRSS11A in additional species, including porcine.

Suitable for use as control antibody for TMPRSS11A siRNA (m): sc-154520, TMPRSS11A shRNA Plasmid (m): sc-154520-SH and TMPRSS11A shRNA (m) Lentiviral Particles: sc-154520-V.

Molecular Weight of TMPRSS11A isoforms: 48/47 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TMPRSS11A (G-13): sc-165752. Immunofluorescence staining of methanol-fixed NIH/37T3 cells showing cytoplasmic localization.

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 or our catalog for detailed protocols and support products.