

RasGRP4 (h2): 293T Lysate: sc-112846

BACKGROUND

RasGRP4 (Ras guanyl releasing protein 4) is a member of the RasGRP family of guanine nucleotide-releasing factors (GRFs) that activate Ras in mammalian cells and are preferentially expressed in hematopoietic cells. RasGRP4 is a mast cell-specific protein that is widely expressed during fetal development and can be found in spleen, liver, skeletal muscle, placenta, heart and lung tissues of adults. Localizing to the cytoplasm, RasGRP4 contains one EF-hand domain which binds calcium, an N-terminal Ras-GEF domain and a phorbol-ester/DAG-type zinc finger which binds DAG (diacylglycerol). RasGRP4 functions as a DAG-regulated, cation-dependent, guanine nucleotide exchange factor (GEF). Upon activation by DAG, RasGRP4 is recruited to the plasma membrane where it is believed to participate in membrane ruffling and the spreading of activated cells. Mutations in the gene encoding RASGRP4 can result in a higher susceptibility to asthma and cancer.

REFERENCES

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6. Zheng, Y., et al. 2005. Phosphorylation of RasGRP3 on Threonine 133 provides a mechanistic link between PKC and Ras signaling systems in B cells. *Blood* 105: 3648-3654.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: RASGRP4 (human) mapping to 19q13.2.

PRODUCT

RasGRP4 (h2): 293T Lysate represents a lysate of human RasGRP4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RasGRP4 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive RasGRP4 antibodies. Recommended use: 10-20 µl per lane.

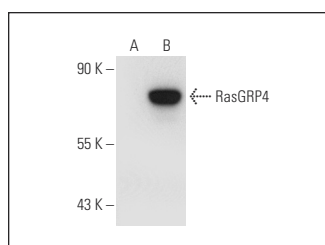
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RasGRP4 (B-16): sc-81900 is recommended as a positive control antibody for Western Blot analysis of enhanced human RasGRP4 expression in RasGRP4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



RasGRP4 (B-16): sc-81900. Western blot analysis of RasGRP4 expression in non-transfected: sc-117752 (A) and human RasGRP4 transfected: sc-112846 (B) 293T whole cell lysates.

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.