

β2-chimaerin (E-12): sc-162444

BACKGROUND

β-chimaerin, also known as Rho GTPase-activating protein 3 and CHN2, is a 468 amino acid GTPase-activating protein. Localized to the membrane, β-chimaerin inactivates the GTP-hydrolase Rac 1 in a diacylglycerol-dependent manner. As insufficient expression of β-chimaerin leads to higher Rac activity, which directly affects cancer cell-cycle progression and proliferation, β-chimaerin has been implicated in tumor progression. Additionally, β-chimaerin has been identified to play a role in T cell receptor signaling by affecting phorbol ester and SDF-1-regulated T cell responses. Expressed highly in the brain and pancreas, β-chimaerin contains one phorbol-ester/DAG-type zinc finger, a Rho GAP domain and a SH2 domain. Two isoforms of β-chimaerin exist as a result of alternative splicing events.

REFERENCES

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7. Yasuda, S., et al. 2007. Diacylglycerol kinase γ interacts with and activates β2-chimaerin, a Rac-specific GAP, in response to epidermal growth factor. *FEBS Lett.* 581: 551-557.
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CHROMOSOMAL LOCATION

Genetic locus: Chn2 (mouse) mapping to 6 B3.

SOURCE

β2-chimaerin (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β2-chimaerin of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-162444 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β2-chimaerin (E-12) is recommended for detection of β2-chimaerin of mouse and rat origin by Western Blotting (starting dilution 1:200, 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) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with α-chimaerin.

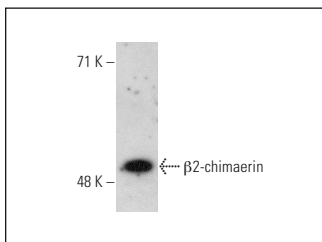
β2-chimaerin (E-12) is also recommended for detection of β2-chimaerin in additional species, including equine, canine and bovine.

Suitable for use as control antibody for β2-chimaerin siRNA (m): sc-108587, β2-chimaerin shRNA Plasmid (m): sc-108587-SH and β2-chimaerin shRNA (m) Lentiviral Particles: sc-108587-V.

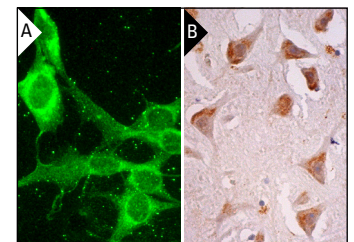
Molecular Weight of β2-chimaerin: 54 kDa.

Positive Controls: F9 cell lysate: sc-2245.

DATA



β2-chimaerin (E-12): sc-162444. Western blot analysis of β2-chimaerin expression in F9 whole cell lysate.



β2-chimaerin (E-12): sc-162444. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing cytoplasmic and nuclear staining of neuronal cells and cytoplasmic staining of glial cells (B).

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 or our catalog for detailed protocols and support products.