

α -chimaerin (h): 293 Lysate: sc-111146

BACKGROUND

The Rac-GAP chimaerin family member α -chimaerin (also known as N-chimaerin or Rho GTPase-activating protein 2) has two splice variants: α 1 and α 2. The α 1-chimaerin variant is a neuron-specific, diacylglycerol-binding and GTPase-activating protein for Ras-related protein Rac 1. This variant lacks the N-terminal SH2 domain that is present in the α 2 variant. By inactivating Rac 1, α 1-chimaerin plays a significant role in the regulation of dendritic growth during neuronal development. It is recruited to the plasma membrane by phospholipase C β -coupled cell surface receptors activating the downstream generation of DAG (diacylglycerol). Overexpression of α 1-chimaerin results in dendritic spine retraction and the loss of dendritic branches. In the presence of reduced neuronal activity, α 1-chimaerin expression is down-regulated resulting in an increase in spine growth and dendritic branching.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CHN1 (human) mapping to 2q31.1.

PRODUCT

α -chimaerin (h): 293 Lysate represents a lysate of human α -chimaerin transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

α -chimaerin (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive α -chimaerin antibodies. Recommended use: 10-20 μ l per lane.

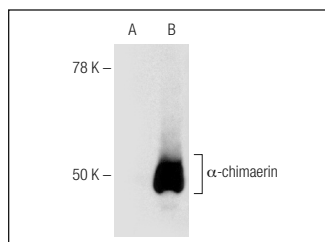
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

α -chimaerin (G-8): sc-365985 is recommended as a positive control antibody for Western Blot analysis of enhanced human α -chimaerin expression in α -chimaerin transfected 293 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



α -chimaerin (G-8): sc-365985. Western blot analysis of α -chimaerin expression in non-transfected: sc-110760 (A) and human α -chimaerin transfected: sc-111146 (B) 293 whole cell lysates.

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.

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.