

CapZ- α (E-17): sc-74357

BACKGROUND

The F-Actin family of capping proteins includes CapZ- α 1, CapZ- α 2, CapZ- α 3 and CapZ- β 3, all of which function in a calcium-dependent manner and bind to the fast growing barbed end of Actin filaments, thereby blocking protein exchange at these ends. The F-Actin capping protein complex is a heterodimer consisting of α and β subunits that caps the barbed ends of Actin filaments and nucleates the polymerization of Actin monomers, yet does not sever Actin filaments. CapZ- α 1, also known as F-Actin-capping protein subunit α -1, is a 286 amino acid subunit of the heterodimer that forms the F-Actin capping protein complex. CapZ- α 1 also has been shown to bind S-100 β chain, a signaling molecule involved in the calcium-sensitive assembly of intermediate filaments that has been linked to Alzheimer's disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CAPZA1 (human) mapping to 1p13.2, CAPZA2 (human) mapping to 7q31.2; Capza1 (mouse) mapping to 3 F2.2, Capza2 (mouse) mapping to 6 A2.

SOURCE

CapZ- α (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CapZ- α 1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-74357 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CapZ- α (E-17) is recommended for detection of CapZ- α 1 and CapZ- α 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

CapZ- α (E-17) is also recommended for detection of CapZ- α 1 and CapZ- α 2 in additional species, including equine, canine, bovine, porcine and avian.

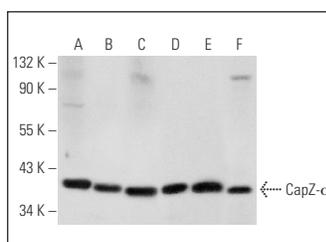
Molecular Weight of CapZ- α : 36 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HT-1080 whole cell lysate: sc-364183 or T24 cell lysate: sc-2292.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CapZ- α (E-17): sc-74357. Western blot analysis of CapZ- α expression in A-431 (A), T24 (B), HL-60 (C), NIH/3T3 (D) and HT-1080 (E) whole cell lysates and mouse brain tissue extract (F).

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.