

CapZ- α 3 (MB120): sc-130480

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. CapZ- α 3 (capping protein (Actin filament) muscle Z-line, α 3), also known as Gsg3 or CAPPA3, is a 299 amino acid member of the F-Actin capping protein family. Expressed primarily in sperm and testis and localizing specifically to the neck region of ejaculated sperm, CapZ- α 3 is thought to play an important role in male fertility, specifically influencing sperm architecture and spermatid morphogenesis. CapZ- α 3 may exist as a heterodimer of α and β subunits and shares 91% sequence similarity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CAPZA3 (human) mapping to 12p12.3; Capza3 (mouse) mapping to 6 G2.

SOURCE

CapZ- α 3 (MB120) is a mouse monoclonal antibody raised against recombinant CapZ- α 3 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 50 μ g IgG_{2a} kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CapZ- α 3 (MB120) is recommended for detection of CapZ- α 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for CapZ- α 3 siRNA (h): sc-95744, CapZ- α 3 siRNA (m): sc-142008, CapZ- α 3 shRNA Plasmid (h): sc-95744-SH, CapZ- α 3 shRNA Plasmid (m): sc-142008-SH, CapZ- α 3 shRNA (h) Lentiviral Particles: sc-95744-V and CapZ- α 3 shRNA (m) Lentiviral Particles: sc-142008-V.

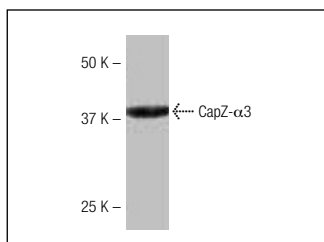
Molecular Weight of CapZ- α 3: 33 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

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, 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).

DATA



CapZ- α 3 (MB120): sc-130480. Western blot analysis of CapZ- α 3 expression in PC-12 whole cell lysate.

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 for detailed protocols and support products.