SANTA CRUZ BIOTECHNOLOGY, INC.

Dynamin II (B-4): sc-166525



BACKGROUND

Members of the Dynamin family, including Dynamin I and Dynamin II, are GTPase, microtubule-associated proteins which are involved in endocytosis, synaptic transmission and neurogenesis. Dynamin I is localized to the central nervous system, while Dynamin II exhibits ubiquitous distribution with highest expression in testis. Both Dynamin proteins contain SH3 and proline-rich domains that mediate interactions between the dynamins and effectors of their GTPase activity. The interactions with these effectors, which include microtubules, acidic phospholipids and SH3 domain-containing proteins, are required for rapid endocytosis. Dynamin I appears to be recruited to Clathrin coated pits by SH3 domain interaction with amphiphysin, a protein highly expressed in brain.

CHROMOSOMAL LOCATION

Genetic locus: DNM2 (human) mapping to 9p23; Dnm2 (mouse) mapping to 9 A3.

SOURCE

Dynamin II (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 840-870 at the C-terminus of Dynamin II of human origin.

PRODUCT

Each vial contains 200 $\mu g\, lgG_3$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166525 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Dynamin II (B-4) is recommended for detection of Dynamin II of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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); may cross-react with Dynamin III.

Dynamin II (B-2) is also recommended for detection of Dynamin II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dynamin II siRNA (h): sc-35236, Dynamin II siRNA (m): sc-35237, Dynamin II shRNA Plasmid (h): sc-35236-SH, Dynamin II shRNA Plasmid (m): sc-35237-SH, Dynamin II shRNA (h) Lentiviral Particles: sc-35236-V and Dynamin II shRNA (m) Lentiviral Particles: sc-35237-V.

Molecular Weight of Dynamin II: 100 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HEL 92.1.7 cell lysate: sc-2270 or c4 whole cell lysate: sc-364186.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA





Dynamin II (B-4): sc-166525. Western blot analysis of Dynamin II expression in Hep G2 (A), Jurkat (B), HEL 92.1.7 (C), c4 (D) and F9 (E) whole cell lysates.

Dynamin II (B-4): sc-166525. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

 Poswiata, A., et al. 2022. Endocytic trafficking of GAS6-AXL complexes is associated with sustained AKT activation. Cell. Mol. Life Sci. 79: 316.

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.



See **Dynamin II (G-4): sc-166669** for Dynamin II antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.