SANTA CRUZ BIOTECHNOLOGY, INC.

# Dynamin I (C-16): sc-6402

SANTA CRUZ BIOTECHNOLOGY
*The Power to Question*

## 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 found 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: DNM1 (human) mapping to 9q34.11; Dnm1 (mouse) mapping to 2 B.

## SOURCE

Dynamin I (C-16) is available as either goat (sc-6402) or rabbit (sc-6402-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of Dynamin I of human 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-6402 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Dynamin I (C-16) is recommended for detection of Dynamin I of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Dynamin I (C-16) is also recommended for detection of Dynamin I in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Dynamin I siRNA (h): sc-43737, Dynamin I siRNA (m): sc-35234, Dynamin I shRNA Plasmid (h): sc-43737-SH, Dynamin I shRNA Plasmid (m): sc-35234-SH, Dynamin I shRNA (h) Lentiviral Particles: sc-43737-V and Dynamin I shRNA (m) Lentiviral Particles: sc-35234-V.

Molecular Weight of Dynamin I: 100 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, mouse brain extract: sc-2253 or SH-SY5Y cell lysate: sc-3812.

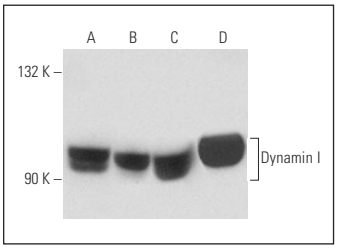
## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

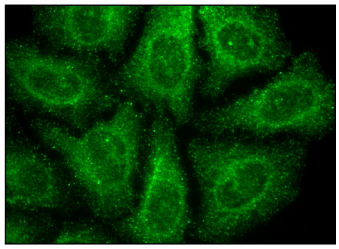
## RESEARCH USE

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

## DATA




Dynamin I (C-16): sc-6402. Western blot analysis of Dynamin I expression in SK-N-SH (**A**), U-87 MG (**B**) and SH-SY5Y (**C**) whole cell lysates and mouse brain tissue extract (**D**).



Dynamin I (C-16)-R: sc-6402-R. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS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4. Austin, C.D, et al. 2006. Death-receptor activation halts clathrin-dependent endocytosis. Proc. Natl. Acad. Sci. USA 103: 10283-10288.
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6. Wu, Y., et al. 2007. Truncations of amphiphysin I by calpain inhibit vesicle endocytosis during neural hyperexcitation. EMBO J. 26: 2981-2990.
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