



PhosphoSolutions®
Antibodies that work™

Colorado Biosciences Park
12635 East Montview Boulevard, #213
Aurora, CO 80045-7337
Tel: (888) 442-7100

Anti-Dynamin

Catalog Number: 480-DYN

Size: 100 µl

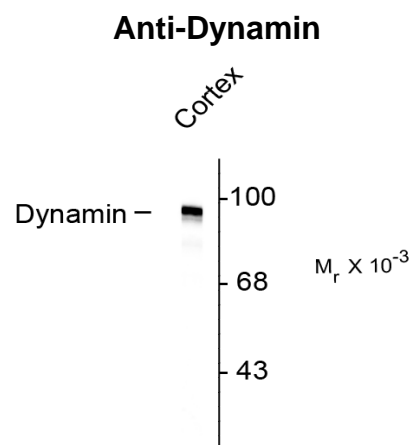
Product Description: Affinity purified rabbit polyclonal antibody

Applications: **WB:** 1:1000

Antigen: Peptide corresponding to amino acid residues from the N-terminal region of human Dynamin, conjugated to keyhole limpet hemocyanin (KLH).

Specificities: The antibody has been demonstrated to work in rat. It is also anticipated that the antibody will work with human, mouse, non-human primates, cow and chicken based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Biological Significance: Dynamin is a member of a group of nerve terminal proteins called dephosphins that regulate synaptic vesicle endocytosis (Cousin et al., 2001; Graham et al., 2002; Tsuboi et al., 2002). There are 3 known isoforms of Dynamin, each having several splice variants as well. Dynamin I is expressed only in neurons whereas Dynamin II is ubiquitously expressed and Dynamin III is found primarily in the testes. Dynamin 1 is phosphorylated by PKC and dephosphorylated by calcineurin.



Western Blot of rat cortex lysate showing labeling of the ~95k dynamin protein.

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WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.

Storage and Stability: Store at -20°C; stable for at least one year.

Shipment: Domestic - Blue Ice; International - Blue Ice or Dry Ice.

Purification Method: Prepared from rabbit serum by affinity purification via chromatography on an affinity column made with the N-terminal peptide used as antigen.

Antibody Specificity: Specific for ~95k dynamin protein.

Quality Control Tests: Western blots performed on each lot.

References:

Cousin MA, Tan TC, Robinson PJ (2001) Protein phosphorylation is required for endocytosis in nerve terminals: potential role for the dephosphins dynamin I and synaptojanin, but not AP180 or amphiphysin. *J Neurochem* 76:105-116.

Graham ME, O'Callaghan DW, McMahon HT, Burgoyne RD (2002) Dynamin-dependent and dynamin-independent processes contribute to the regulation of single vesicle release kinetics and quantal size. *Proc Natl Acad Sci USA* 99:7124-7129.

Tan TC, Valova VA, Malladi CS, Graham ME, Berven LA, Jupp OJ, Hansra G, McClure SJ, Sarcevic B, Boadle RA, Larsen MR, Cousin MA, Robinson PJ (2003) cdk5 is essential for synaptic vesicle endocytosis. *Nat Cell Biol* 5:701-710.

Tsuboi T, Terakawa S, Scalettar BA, Fantus C, Roder J, Jeromin A (2002) Sweeping model of dynamin activity - Visualization of coupling between exocytosis and endocytosis under an evanescent wave microscope with green fluorescent proteins. *J Biol Chem* 277:15957-15961.

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