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Datasheet for 612-601-D33

Dynamin phospho S778 Antibody

Overview

Description:	Anti-Dynamin pS778 (SHEEP) Antibody - 612-601-D33
Item No.:	612-601-D33
Size:	100 µL
Applications:	WB
Reactivity:	Rat
Host Species:	Sheep

Product Details

Background:	Dynamin Antibody detects Dynamin which is a member of a group of nerve terminal proteins called dephosphins that regulate synaptic vesicle endocytosis. Cyclin dependent protein kinase 5 phosphorylates dynamin at Ser774 and Ser778 that are the phosphorylation sites on dynamin phosphorylated in vivo. Phosphorylation of these sites on dynamin is thought to play a key role in synaptic vesicle trafficking. Anti-Dynamin pS778 Antibody is ideal for investigators involved in Cell Signaling, Cell Motility, Neuroscience and Cancer Research.
Synonyms:	sheep anti-Dynamin pS778 Antibody, Dynamin-1, B-dynamin, D100, Dnm1, Dnm
Host Species:	Sheep
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Dnm1
Reactivity:	Rat
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Dynamin pS778 Antibody was produced in sheep by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser778 conjugated to KLH.

Purity/Specificity:	Anti-Dynamin pS778 antibody is directed against human Dynamin. Anti-Dynamin pS778 antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-sheep Serum. This antibody is specific for phosphorylated Dynamin pS778 . Minimal reactivity occurs against non-phosphorylated Dynamin pS778 . Reactivity is completely blocked by treatment with lambda-phosphatase. Reactivity against Dynamin pS778 occurs from rat sources. However, reactivity is also expected against bovine, canine, chicken, human and mouse.
Relevant Links:	• UniProtKB - P21575 • GeneID - 140694 • NCBI - AAA16746.1

Application Details

Tested Applications:	WB
Application Note:	Anti-Dynamin pS778 Antibody is tested for use in ELISA and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 95 kDa in size corresponding to dynamin protein phosphorylated at Ser778 in the appropriate cell lysate or extract. Anti-Dynamin pS778 antibody labels the purified protein phosphorylated in vitro by cdk5 but not by PKC. Anti-Dynamin pS778 antibody does not cross react with other purified substrates of cdk5 (e.g. amphiphysin and synapsin).
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
WB:	1:1000

Formulation

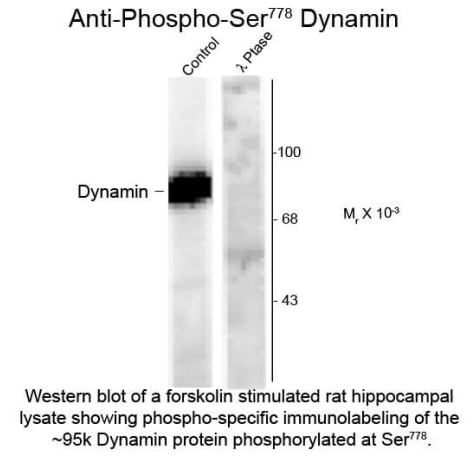
Physical State:	Liquid
Concentration:	Titrated value sufficient to run approximately 10 mini blots.
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western blot of a forskolin stimulated rat hippocampal lysate showing phospho-specific immunolabeling of the ~95k Dynamin protein phosphorylated at Ser778.

Western Blot
Western Blot of Anti-Dynamin pS778 (Sheep) Antibody . Lane 1: rat hippocampal lysate stimulated with forskolin. Lane 2: rat hippocampal lysate stimulated with forskolin incubated in λ-Ptase (1200 units for 30 min). Load: 10 µg per lane. Primary antibody: Dynamin pS778 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ sheep secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~95kDa/~95kDa for dynamin phosphorylated at Ser778 . Other band(s): none.

References

- Liu GT et al. Endosomal phosphatidylinositol 3-phosphate controls synaptic vesicle cycling and neurotransmission. *EMBO J.* (2022)

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