

#### DESCRIPTION

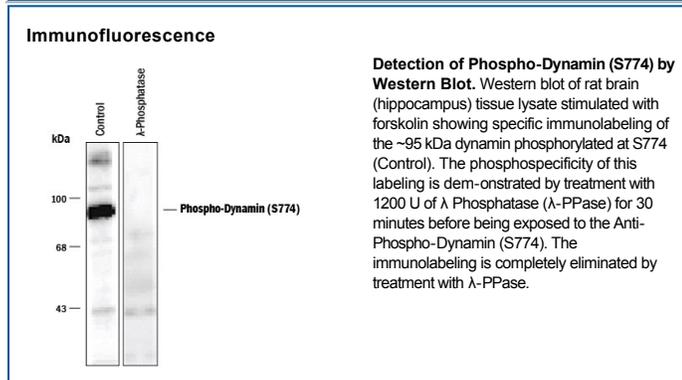
<b>Species Reactivity</b>	Human/Mouse/Rat/Bovine/Canine/Chicken/Primate
<b>Specificity</b>	Human, mouse, rat, bovine, canine, chicken, and primate ~95 kDa Dynamin protein phosphorylated at S774. Labels the purified protein phosphorylated <i>in vitro</i> by cdk5 but not by PKC. Does not cross react with other purified substrates of cdk5 (e.g., Amphiphysin and Synapsin).
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Phosphopeptide corresponding to amino acid residues surrounding phospho-S774 of Dynamin
<b>Formulation</b>	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA and 50% glycerol. See Certificate of Analysis for details.

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1:1000 dilution	Rat brain (hippocampus) tissue
<b>Immunofluorescence</b>	1:1000 dilution	See Below
<b>Immunohistochemistry</b>	1:1000 dilution	Fixed culture neurons

#### DATA



#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	For long-term storage, -20° C is recommended. Product is stable at -20° C for at least 1 year.

#### BACKGROUND

Rat Dynamin (or Dynamin 1; also known as dephosphin) is a 95-100 kDa GTPase that belongs to the "classic dynamin" group of the dynamin superfamily. It is 864 amino acids (aa) in length, and contains three N-terminal GTP-binding elements (aa 38-208), one pleckstrin-homology domain (aa 519-625), a GED (GTPase effector domain) (aa 645-745), and a C-terminal SH3-binding proline-rich region (aa 753-864). At least four alternate splice forms are known, one that shows a 47 aa substitution between aa 398-445, and three that generate unique C-termini over the last 20 amino acids. Dynamin is found constitutively phosphorylated and inactive in the cytoplasm just under synaptic membranes. Upon stimulation, calcineurin dephosphorylates, and nitric oxide nitrosylates, Dynamin. Dephosphorylated and nitrosylated Dynamin now interacts with the cell membrane, generating endocytic synaptic vesicles. The process terminates when Cdk5 rephosphorylates Dynamin on S744 and S778.