www.phosphosolutions.com
orders@phosphosolutions.com
888-442-7100

Product Datasheet

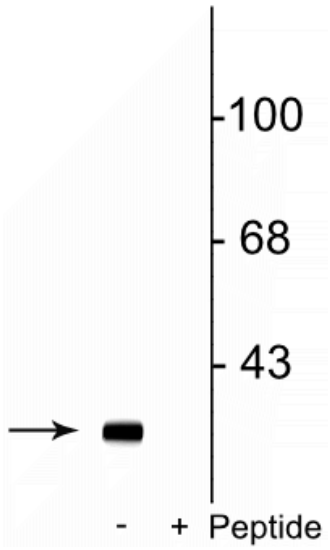
Anti-DARPP-32 (Ser137)

Pooled Serum

Overview

Catalog #	p1025-137
Host Species	Rabbit Polyclonal
Format	Antigen Affinity Purified from Pooled Serum
Applications	WB 1:1000
Species Tested	Mouse, Rat
Expected Reactivity	Bovine, Canine, Human, Non-Human Primate
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser137 of rat DARPP-32, conjugated to keyhole limpet hemocyanin (KLH).
Molecular Weight	32 kDa
Cite this Antibody	PhosphoSolutions Cat# p1025-137, RRID:AB_2492070

Images



Western blot of rat striatal lysate showing specific immunolabeling of the ~32 kDa DARPP-32 phosphorylated at Ser^{137} in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is blocked by preadsorption of the phosphopeptide used as the antigen, but not by the corresponding non-phosphopeptide (not shown).

Details

Target Description	DARPP-32 is a dopamine (DA) and cAMP-regulated ~32 kDa phosphoprotein that is associated with dopaminoceptive neurons (Fienberg et al., 1998). The protein inhibits protein phosphatase I when it is phosphorylated on Thr-34. In contrast, when DARPP-32 is phosphorylated on Thr-75 the protein acts as an inhibitor of PKA (Bibb et al., 1999). Phosphorylation of DARPP-32 is thought to play a critical role in the regulation of dopaminergic neurotransmission. In addition, the activity of DARPP-32 is also thought to play important roles in the actions of alcohol, caffeine and Prozac® (Maldve et al., 2002; Lindskog et al., 2002; Svenningsson et al., 2002). Serine-137 is phosphorylated by casein kinase 1 and phosphorylation of this site is increased following acute administration of Prozac® (Svenningsson et al., 2002).
Specificity	Specific for endogenous levels of the ~32 kDa DARPP-32 protein phosphorylated at Ser137. Immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide.
Production/Purification	Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phospho peptide affinity columns.
Quality Control	Western blots performed on each lot.
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol.
Stability	After date of receipt, stable for at least 1 year at -20°C.

Significant Citations

Bellini, S., Fleming, K.E., De, M., McCauley, J.P., Petroccione, M.A., D'Brant, L.Y., Tkachenko, A., Kwon, S., Jones, L.A. and Scimemi, A., 2018. Neuronal glutamate transporters control dopaminergic signaling and compulsive behaviors. *Journal of Neuroscience*, 38(4), pp.937-961.

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