

Rabbit anti-Rat DARPP-32 (Ser137) Polyclonal Antibody | anti-PPP1R1B antibody

Anti-Phospho-Ser137 DARPP-32

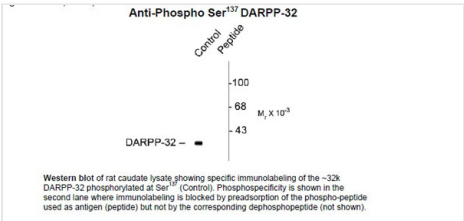
CATALOG # AAA72815	HOST Rabbit	REACTIVITY Rat	APPLICATIONS Western Blot
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PRODUCT SYNONYMS

DARPP-32 (Ser137); Polyclonal Antibody; Anti-Phospho-Ser137 DARPP-32; anti-PPP1R1B antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Specificity	Specific for the ~32k DARPP-32 protein phosphorylated at Ser137. Immunolabeling is blocked by preadsorption with the phospho-peptide used as antigen but not by the dephospho-peptide
Purity/Purification	Affinity Purified (Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.)
Form/Format	100 ul in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.
Sequence Length	205
Applicable Applications for anti-PPP1R1B antibody	WB (Western Blot)
Antigen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser137 of rat DARPP-32.
Immunogen Information	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser137 conjugated to KLH
Immunogen Species	Rat
Reactivity Assumed Based on 100% Sequence Homology	Bovine, canine, human, mouse and non-human primates
Species Reactivity Note	The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will also react with bovine, canine, chicken, human, mouse, and non-human primates based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
Biological Significance	DARPP-32 is a dopamine (DA) and cAMP-regulated ~32k phosphoprotein that is associated with dopaminergic neurons (Fienberg et al., 1998). The protein inhibits protein phosphatase I when it is phosphorylated on Thr34. In contrast, when DARPP-32 is phosphorylated on Thr75 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).
Preparation and Storage	For long term storage -80 degree C is recommended, but shorter term storage at -20 degree C is also acceptable as aliquots may be taken without freeze/thawing due to the presence of 50% glycerol. Stock solutions are stable for a minimum of 1 yr at -20 degree C.



Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-PPP1R1B antibody	Affinity purified rabbit polyclonal antibody
References	• Bibb JA, Snyder GL, Nishi A, Yan Z, Meijer L, Fienberg AA, Tsai LH, Kwon YT, Girault JA, Czernik AJ, Haganir RL, Hemmings HC, Jr., Nairn AC, Greengard P (1999) Phosphorylation of DARPP-32 by cdk5 modulates dopamine signalling in neurons. Nature (London) 402:669-671. • Fienberg, A.A., Hiroi, N., Mermelstein, P.G., Song, W., Snyder, G.L., Nishi, A., Cheramy, A. O'Callaghan, J.P., Miller, D.B., Cole, D.G., Corbett, R., Haile, C.N., Cooper, D.C., Onn, S.P., Grace, A.A., Ouimet, C.C., White, F.G., Hyman, S.E., Surmeier, D.G., Girault, J., Nestler, E.J. and Greengard, P. (1998) DARPP-32: regulator of the efficacy of dopaminergic neurotransmission. Science 281:838-842. • Lindskog M, Svenningsson P, Pozzi L, Kim Y, Fienberg AA, Bibb JA, Fredholm BB, Nairn AC, Greengard P, Fisone G (2002) Involvement of DARPP-32 phosphorylation in the stimulant action of caffeine. Nature (London) 418:774-778. • Maldve RE, Zhang TA, Ferrani-Kile K, Schreiber SS, Lippmann MJ, Snyder GL, Feinberg AA, Leslie SW, Gonzales RA, Morrisett RA (2002) DARPP-32 and the regulation of the ethanol sensitivity of NMDA receptors in the nucleus accumbens. Nature Neurosci 5:641-648. • Svenningsson P, Tzavara ET, Witkin JM, Fienberg AA, Nomikos GG, Greengard P (2002) Involvement of striatal and extrastriatal DARPP-32 in biochemical and behavioral effects of fluoxetine (Prozac). Proc Natl Acad Sci USA 99:3182-3187.

NCBI AND UNIPROT INFORMATION

NCBI GI #	61889054
NCBI GeneID	360616
NCBI Accession #	NP_612530.1
NCBI GenBank Nucleotide #	NM_138521.1
UniProt Accession #	Q6J4I0
NCBI Official Full Name	protein phosphatase 1 regulatory subunit 1B
NCBI Official Synonym Full Names	protein phosphatase 1, regulatory (inhibitor) subunit 1B
NCBI Official Symbol	Ppp1r1b
NCBI Official Synonym Symbols	Darpp32; Darpp-32
NCBI Protein Information	protein phosphatase 1 regulatory subunit 1B; neuronal phosphoprotein DARPP-32; dopamine- and cAMP-regulated neuronal phosphoprotein; dopamine- and cAMP-regulated phosphoprotein DARPP-32
UniProt Protein Name	Protein phosphatase 1 regulatory subunit 1B
UniProt Gene Name	Ppp1r1b
UniProt Entry Name	PPR1B_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

