

Datasheet: AHP897

Description:	RABBIT ANTI DARPP-32 (pThr34)
Specificity:	DARPP-32 (pThr34)
Other names:	DOPAMINE-AND cAMP-REGULATED PHOSPHOPROTEIN-32
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/1000

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Rat

Species Cross Reactivity

Based on sequence similarity, is expected to react with: Mouse, Dog, Human, Bovine, Chicken, Monkey

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Antiserum Preparation

Antisera to phosphorylated rat DARPP-32 were raised by repeated immunisations of rabbits with highly purified antigen.

Buffer Solution	10mM HEPES pH7.5
Preservative Stabilisers	0.09% Sodium Azide 0.1% Bovine Serum Albumin 50% Glycerol
Immunogen	Synthetic phosphopeptide corresponding to an amino acid sequence within DARPP-32 which includes phosphorylated Thr34.
External Database Links	UniProt: Q6J4I0 Related reagents Entrez Gene: 360616 Ppp1r1b Related reagents
RRID	AB_566944
Specificity	Rabbit anti Rat DARPP-32 (pThr34) antibody recognizes DARPP-32, also known as protein phosphatase 1 regulatory subunit 1B and dopamine- and cAMP-regulated neuronal phosphoprotein, when phosphorylated at threonine 34. DARPP-32 is a 205 amino acid ~32 kDa member of the protein phosphatase inhibitor 1 family. DARPP-32 is principally expressed in striatal medium spiny neurons, and plays a critical role in the regulation of dopaminergic neurotransmission. DARPP-32 can act either as a phosphatase inhibitor or as a kinase inhibitor, depending on its relative state of phosphorylation . Phosphorylation at threonine 34 converts DARPP-32 into an inhibitor of protein phosphatase-1 (PP-1) whilst phosphorylation at threonine 75 switches the protein to an inhibitor of protein kinase A (PKA) . G-protein coupled receptor 6 deficiency in a mouse model of Parkinsons disease leads to an increase in DARPP-32 (pThr34) in striatopalladial neurons with a concomitant increase in locomotor activity and reduced abnormal movements in the mouse dyskinesia model of Parkinson's disease, thus suggesting treatment other than dopamine replacement for the condition (Oeckl et al. 2014).
Western Blotting	AHP897 detects a band of approximately 32kDa in rat caudate lysates.
References	1. Xiao, M.F. <i>et al.</i> (2009) Neural cell adhesion molecule modulates dopaminergic signaling and behavior by regulating dopamine D2 receptor internalization. J Neurosci. 29: 14752-63. 2. Oeckl, P. <i>et al.</i> (2014) G-protein coupled receptor 6 deficiency alters striatal dopamine and cAMP concentrations and reduces dyskinesia in a mouse model of Parkinson's disease Exp Neurol. 257C: 1-9. 3. Kotarska, A. <i>et al.</i> (2020) Cell adhesion molecule close homolog of L1 binds to the dopamine receptor D2 and inhibits the internalization of its short isoform. FASEB J. 34 (4): 4832-51.

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10088 available at: 10088: <https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)

Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®680](#), [DyLight®800](#)

Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

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