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 concommitent 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 (Oekl *et al.* 2014).
Western Blotting	AHP897 detects a band of approximately 32kDa in rat caudate lysates.
References	1. Xiao, M.F. *et al.* (2009) Neural cell adhesion molecule modulates dopaminergic signaling and behavior by regulating dopamine D2 receptor internalization. J Neurosci. 29: 14752-63. 2. Oeckl, P. *et al.* (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. *et al.* (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: https://www.bio-rad-antibodies.com/SDS/AHP897 10088
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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