

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)	▪			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.

(1) **For the detection of phosphoproteins, threonine phosphatase inhibitors such as 10mM Sodium Fluoride should be added to the sample buffer. Milk or other casein-based blocking solutions are not recommended as casein is a phosphoprotein and its use can result in high background.**

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.
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	0.09% Sodium Azide
Stabilisers	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](#)

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 striatopallidial 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. *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.](#)
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Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted.
Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

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 (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight@488](#), [DyLight@549](#), [DyLight@649](#),
[DyLight@680](#), [DyLight@800](#)

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