

Datasheet: AHP897

**BATCH NUMBER 170508**

<b>Description:</b>	RABBIT ANTI DARPP-32 (pThr34)
<b>Specificity:</b>	DARPP-32 (pThr34)
<b>Other names:</b>	DOPAMINE-AND cAMP-REGULATED PHOSPHOPROTEIN-32
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://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.

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**Buffer Solution** 10mM HEPES pH7.5

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**Preservative** 0.09% Sodium Azide  
**Stabilisers** 0.1% Bovine Serum Albumin  
50% Glycerol

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**Immunogen** Synthetic phosphopeptide corresponding to an amino acid sequence within DARPP-32 which includes phosphorylated Thr34.

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**External Database Links**

**UniProt:**

[Q6J4I0](#) [Related reagents](#)

**Entrez Gene:**

[360616](#) Ppp1r1b [Related reagents](#)

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**RRID** AB\_566944

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**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 ([Oekl et al. 2014](#)).

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**Western Blotting** AHP897 detects a band of approximately 32kDa in rat caudate lysates.

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10088 available at:  
<https://www.bio-rad-antibodies.com/SDS/AHP897>  
10088

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

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'M364355:200529'

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