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## DARPP 32

**Cat.No. 382 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)**

### Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O, then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 up to 1 : 5000 (AP staining) <b>IP:</b> not tested yet <b>ICC:</b> not tested yet <b>IHC:</b> 1 : 5000 up to 1 : 10000 <b>IHC-P/FFPE:</b> 1 : 500 up to 1 : 1000
Immunogen	Synthetic peptide corresponding to AA 148 to 166 from mouse Darpp32 (UniProt Id: Q60829)
Reactivity	Reacts with: mouse (Q6J4I0), rat (Q60829). Other species not tested yet.
Specificity matching control	Specific for DARPP 32. 382-OP

### Selected General References

Protective Effect of Curcumin by Modulating BDNF/DARPP32/CREB in Arsenic-Induced Alterations in Dopaminergic Signaling in Rat Corpus Striatum.  
Srivastava P, Dhuriya YK, Gupta R, Shukla RK, Yadav RS, Dwivedi HN, Pant AB, Khanna VK  
Molecular neurobiology (2016) :.

Interrogating the aged striatum: robust survival of grafted dopamine neurons in aging rats produces inferior behavioral recovery and evidence of impaired integration.  
Collier TJ, O'Malley J, Rademacher DJ, Stancati JA, Sisson KA, Sortwell CE, Paumier KL, Gebremedhin KG, Steele-Collier K  
Neurobiology of disease (2015) 77: 191-203.

Striatal progenitors derived from human ES cells mature into DARPP32 neurons in vitro and in quinolinic acid-lesioned rats.  
Aubry L, Bugi A, Lefort N, Rousseau F, Peschanski M, Perrier AL  
Proceedings of the National Academy of Sciences of the United States of America (2008) 105(43): 16707-12.

Phosphodiesterase 1B differentially modulates the effects of methamphetamine on locomotor activity and spatial learning through DARPP32-dependent pathways: evidence from PDE1B-DARPP32 double-knockout mice.  
Ehrman LA, Williams MT, Schaefer TL, Gudelsky GA, Reed TM, Fienberg AA, Greengard P, Vorhees CV  
Genes, brain, and behavior (2006) 5(7): 540-51.

Immunohistochemical localization of DARPP32 in striatal projection neurons and striatal interneurons in pigeons.  
Reiner A, Perera M, Paullus R, Medina L  
Journal of chemical neuroanatomy (1998) 16(1): 17-33.

### TO BE USED IN VITRO / FOR RESEARCH ONLY

**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

The dopamine and cAMP regulated phosphoprotein 32 kDa (**DARPP 32**), also known as **PPP1R1B**, is phosphorylated in a dopamine dependent manner. Stimulation of the dopamine receptor DRD 1 increases cAMP levels resulting in DARPP 32 phosphorylation. It is a commonly used marker for striatal medium spiny neurons (MSNs).