

DARPP 32

Cat.No. 382-0P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 148 to 166 from mouse Darpp32 (UniProt Id: Q60829)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	382 002, 382 003, 382 004, 382 005
Remarks	This control peptide consists of the synthetic peptide (aa 148-166 of mouse DARPP 32) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

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).