

## PRODUCT DATA SHEET

**Product Name:** ANTI-PHOSPHO-Thr<sup>75</sup> DARPP-32 ANTIBODY

**Product Code:** P40005-100

**Pack Size:** 100 µL

**Description:** DARPP-32 is a dopamine (DA) and cAMP-regulated ~32k phosphoprotein that is associated with dopaminergic neurons (Fienberg et al., 1998). The protein inhibits protein phosphatase I when it is phosphorylated on Thr<sup>34</sup>. In contrast, when DARPP-32 is phosphorylated on Thr<sup>75</sup> the protein acts as an inhibitor of PKA (Bibb et al., 1999). Phosphorylation of DARPP-32 is thought to play a critical role in the regulation of dopaminergic neurotransmission. In addition, the activity of DARPP-32 is also thought to play important roles in the actions of alcohol, caffeine and Prozac<sup>®</sup> (Malvdve et al., 2002; Lindskog et al., 2002; Svenningsson et al., 2002).

**Physical State:** Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol

**Storage/Stability:** Stable at -20 °C for at least 1 year. For long term storage -20 °C is recommended

**Purification Method:** Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

**Shipping Conditions:** Domestic: Blue Ice  
International: Blue Ice or Dry Ice

**Host Species:** Rabbit (Polyclonal)

**Mr (kDa):** 32

**Immunogen:** Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr<sup>75</sup> of rat DARPP-32.

**Species Reactivity:** The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will react with bovine, canine, chicken, human, mouse, and non-human primates based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

### Recommended Antibody Dilutions:

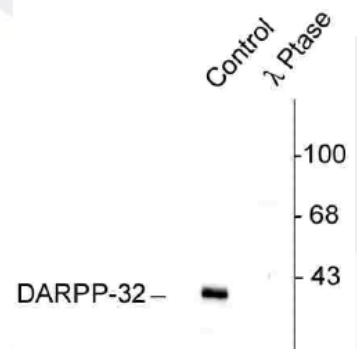
**WB: 1:1000**

### References:

- 1) Bibb JA et al. (1999) *Nature* (London) 402:669-671.
- 2) Fienberg, AA et al. (1998) *Science* 281:838-842.
- 3) Lindskog M et al. (2002) *Nature* (London) 418:774-778.
- 4) Malvdve RE et al. (2002) *Nature Neurosci* 5:641-648.
- 5) Svenningsson P et al. (2002) *Proc Natl Acad Sci USA* 99:3182-3187.

### Western Blot

Rat caudate lysate showing specific immunolabeling of the ~32k DARPP-32 phosphorylated at Thr<sup>75</sup> (Control). Immunolabeling is completely eliminated by treatment with λ-phosphatase shown in lane 2.



**Application Key:** WB – Western Blot IF – Immunofluorescence IHC – Immunohistochemistry IP – Immunoprecipitation

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P/N: 74087 Rev 01