

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse/Rat                                                                                                                                                                                                                                                                   |
| <b>Specificity</b>        | Detects mouse and rat DARPP-32. Reactivity with human DARPP-32 has not been tested.                                                                                                                                                                                         |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 375604                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human DARPP-32<br>Ala51-Thr204<br>Accession # Q9UD71.2                                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Dopamine- and cAMP-Regulated Phosphoprotein, Mr 32 kDa (DARPP-32), also known as PPP1R1B, is a 23 kilodalton protein that anomalously migrates at about 32-35 kDa on SDS-PAGE. When phosphorylated at T34 by protein kinase A (PKA), DARPP-32 is a potent inhibitor of protein phosphatase 1 (PP1). Dephosphorylation of DARPP-32 at T34 is achieved primarily by the calcium-dependent activation of the phosphatase calcineurin. DARPP-32 is expressed almost exclusively in neuronal tissues, with highest levels in dopamine-innervated neurons.

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