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DARPP-32 (19A3) Rabbit mAb (Alexa Fluor® 488 Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F	M R	Endogenous	Rabbit IgG	#Q9UD71	84152
Product Usage Information	Application		Dilution		
	Immunofluorescence (Frozen)		1:50		
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.				
Specificity/Sensitivity	DARPP-32 (19A3) Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total DARPP-32 protein.				
Species predicted to react based on 100% sequence homology	Human				
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu160 of human DARPP-32 protein.				
Description	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct immunofluorescent analysis in rat tissue. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated DARPP-32 (19A3) Rabbit mAb #2306.				
Background	DARPP-32 (dopamine and cyclic AMP-regulated phosphoprotein, relative molecular mass 32,000) is a cytosolic protein highly enriched in medium-sized spiny neurons of the neostriatum (1). It is a bifunctional signaling molecule that controls serine/threonine kinase and serine/threonine phosphatase activity (2). Dopamine stimulates phosphorylation of DARPP-32 through D1 receptors and activation of PKA. PKA phosphorylation of DARPP-32 at Thr34 converts it into an inhibitor of protein phosphatase 1 (1). DARPP-32 is converted into an inhibitor of PKA when phosphorylated at Thr75 by cyclin-dependent kinase 5 (CDK5) (2). Mice containing a targeted deletion of the DARPP-32 gene exhibit an altered biochemical, electrophysiological, and behavioral phenotype (3).				
Background References	<ol style="list-style-type: none"> 1. Nishi, A. et al. (1997) <i>J. Neurosci.</i> 17, 8147-8155. 2. Bibb, J.A. et al. (1999) <i>Nature</i> 402, 669-671. 3. Fienberg, A.A. et al. (1998) <i>Science</i> 281, 838-842. 				

Species Reactivity Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key **M:** Mouse **R:** Rat

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