

#8568 Store at -20°C

IP3 Receptor 1 (D53A5) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	320	Rabbit IgG	#Q14643	3708

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	IP3 Receptor 1 (D53A5) Rabbit mAb recognizes endogenous levels of total IP3R1 protein. This antibody may also detect IP3R2 and IP3R3 as the antigen is highly conserved.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human IP3R1 protein.	
Background	Inositol 1,4,5-triphosphate receptor, also known as IP3R or InsP3R, is a member of the intracellular calcium release channel family and is located in the endoplasmic reticulum. IP3R functions as a Ca2+ release channel for intracellular stores of calcium ions. There are three types of IP3 receptors (IP3R1, 2, and 3) that require the second messenger inositol 1,4,5-triphosphate (IP3) for activation (1). Four individual subunits homo- or hetero-oligomerize to form the receptor's functional channel (2). Phosphorylation of IP3R1 at Ser1756 by cyclic AMP-dependent protein kinase A (PKA) regulates the sensitivity of IP3R1 to IP3 and may be a mode of regulation for Ca2+ release (3,4). IP3R1-mediated Ca2+ release appears to have an effect on the induction of long term depression (LTD) in Purkinje cells (5).	
Background References	1. Joseph, S.K. (1996) <i>Cell Signal</i> 8, 1-7. 2. Galvan, D.L. et al. (1999) <i>J Biol Chem</i> 274, 29483-92. 3. Haug, L.S. et al. (1999) <i>J Biol Chem</i> 274, 7467-73. 4. DeSouza, N. et al. (2002) <i>J Biol Chem</i> 277, 39397-400. 5. Inoue, T. et al. (1998) <i>J Neurosci</i> 18, 5366-73.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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