Revision 4

Store at -20C

#8153

RyR1 (D4E1) Rabbit mAb



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Applications: W, IF-F	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): ~560	Source/Isotype: Rabbit IgG	UniProt ID: #P21817	Entrez-Gene Id: 6261	
Product Usage Information	•	Application Western Blotting Immunofluorescence	(Frozen)		Dilu 1:10 1:10	tion 00 0	
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less th <i>a</i> 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.				ol and less than	
		For a carrier free (BSA and azide free) version of this product see product #19443.					
Specificity/Ser	sitivity	RyR1 (D4E1) Rabbit mAb recognizes endogenous levels of total RyR1 protein. This antibody does not cross-react with other ryanodine receptor proteins.					
Species predic based on 100% homology	ted to react sequence	Pig					
Source / Purifi	cation	Monoclonal antibody residues surrounding	is produced by imm Arg830 of human F	nunizing animals with a s RyR1 protein.	synthetic peptide co	rresponding to	
Background		Ryanodine receptors (sarcoplasmic/endopla intracellular stores in isoforms (RyR1-3), all indirect interaction wi calmodulin, calseques by protein modulators portion of the protein predominantly express the sarcoplasmic retic tubules and sarcoplass ions from the SR folloo RyR1 are the cause of muscle (CCD), multimi fiber-type disproportion and development (2). arrhythmogenic right ventricular tachycardi result of electrical inst ventricular tachycardi dominant isoform in r implicated in synaptic of RyR3 in neuronal fu motor function, but po	RyRs) are large (>50 smic reticulum mere excitable cells, such of which form hom- th a variety of prote strin, junctin, and tr s occurs within the forms the ion-bind ulum (SR) and facili sed in skeletal and ulum (SR) and facili mic reticulum. Con wing depolarization malignant hyperth inicore disease with on (CFTD), each of v Investigators have ventricular dysplas a type 1 (CPVT1), be cability and degene a (2). Despite low le neuronal cells (hipp plasticity, dendritic inction has been su ossess numerous b	00 kDa), intracellular calo mbrane and are respons a smuscle and neurons otetramers regulated by eins (L-type calcium char iadin) and ions (Mg ²⁺ an large cytoplasmic domai ing and conducting pore cardiac muscle, respecti tate calcium-mediated c traction of skeletal musc of T-tubules. Research s ermia susceptibility type external ophthalmople which is manifested by d shown that defects in Ry ia type 2 (ARVD2) and ca oth of which are implicat ration of the ventricular vels of expression in ske ocampal neurons, thalar s spine remodeling, and bstantiated by mice lack ehavioral and social defe	ium channels found ible for the release . RyRs exist as three phosphorylation ar inels, PKA, FKBP12/ d Ca ²⁺). Regulation n, whereas the carb e (1,2). RyR1 and RyF vely, where they loc ommunication betw le is triggered by re studies have shown 1 (MHS1), central c gia, and congenital efects in muscle fur rR2 are the cause of techolaminergic po ed in sudden death myocardium or stre letal and smooth m nus, Purkinje cells) spatial memory fori ing RyR3, which dei ects (4).	d in the of Ca ²⁺ from mammalian nd/or direct or 12.6, CaMKII, of the RyR channel poxy-terminal R2 are calize exclusively to ween transverse- lease of calcium that defects in ore disease of myopathy with notion, metabolism, familial lymorphic syndromes as a ress-induced nuscle, RyR3 is the and has been mation (3). The role monstrate normal	
Background R	eferences	1. Lanner, J.T. et al. (20 2. Betzenhauser, M.J. a 3. Adasme, T. et al. (20 4. Matsuo, N. et al. (20	10) <i>Cold Spring Ha</i> a and Marks, A.R. (20 ⁷ 011) <i>Proc Natl Acad</i> 009) <i>Front Behav Ne</i>	rb Perspect Biol 2, a0039 10) Pflugers Arch 460, 46 Sci U S A 108, 3029-34. eurosci 3, 3.	96. 7-80.		
Species Reacti	vity	Species reactivity is de	etermined by testin	g in at least one approve	d application (e.g.,	western blot).	
Western Blot B	Buffer	IMPORTANT: For west TBS, 0.1% Tween® 20	ern blots, incubate at 4°C with gentle s	membrane with diluted shaking, overnight.	primary antibody ir	ו 5% w/v BSA, 1X	

Applications Key	W: Western Blotting IF-F: Immunofluorescence (Frozen)	
Cross-Reactivity Key	H: Human M: Mouse R: Rat	
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