RYR1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RYR1, Polyclonal Antibody
Full Product Name	RYR1 Conjugated Antibody
Product Gene Name	anti-RYR1 antibody
Product Synonym Names	CCO; MHS; RYR; MHS1; RYDR; SKRR; RYR-1; PPP1R137
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	The antibody detects endogenous levels of total RYR1 protein.
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	86,628 Da
OMIM	117000
3D Structure	ModBase 3D Structure for P21817
Immunogen	Synthetic peptide corresponding to a region derived from internal residues of human ryanodine receptor 1 (skeletal)
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-RYR1 antibody	Most Applications
Application Notes for anti-RYR1 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-RYR1 antibody	This gene encodes a ryanodine receptor found in skeletal muscle. The encoded protein functions as a calcium release channel in the sarcoplasmic reticulum but also serves to connect the sarcoplasmic reticulum and transverse tubule. Mutations in this gene are associated with malignant hyperthermia susceptibility, central core disease, and minicore myopathy with external ophthalmoplegia. Alternatively spliced transcripts encoding different isoforms have been described.
Other Notes	Small volumes of anti-RYR1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RYR1 purchase	MBS9448325 is an antibody targeting RYR1. Also known as RYR1 Conjugated Antibody. Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RYR1. It may not necessarily be applicable to this product.

NCBI GI #	68508955
NCBI GeneID	976
NCBI Accession #	NP_001020331
UniProt Primary Accession #	P21817
UniProt Secondary Accession #	P48960
UniProt Related Accession #	P48960
GenBank Nucleotide #	NM_001025160
NCBI Official Full Name	CD97 antigen isoform 3 preproprotein
NCBI Official Synonym Full Names	CD97 molecule
NCBI Official Symbol	CD97
NCBI Official Synonym Symbols	TM7LN1
UniProt Protein Name	Ryanodine receptor 1
UniProt Synonym Protein Names	Skeletal muscle calcium release channel; Skeletal muscle ryanodine receptor; Skeletal muscle-type ryanodine receptor; Type 1 ryanodine receptor
Protein Family	Ryanodine receptor
UniProt Gene Name	RYR1
UniProt Synonym Gene Names	RYDR; RYR-1; RyR1
UniProt Entry Name	RYR1_HUMAN
NCBI Protein Information	CD97 antigen; leukocyte antigen CD97; seven transmembrane helix receptor; seven-span transmembrane protein; seven-transmembrane, heterodimeric receptor associated with inflammation

UniProt Comments for RYR1	RYR1: Calcium channel that controls communication between transverse-tubules and sarcoplasmic reticulum. Contraction of skeletal muscle is triggered by release of calcium ions from SR following depolarization of T-tubules. Can mediate the release of Ca(2+) from intracellular stores in neurons, and may thereby promote prolonged Ca(2+) signaling in the brain. Required for normal development of muscle fibers, skeletal muscle, heart morphogenesis, and skin development and ossification during embryogenesis. Defects in RYR1 are the cause of malignant hyperthermia susceptibility type 1 (MHS1) and central core disease of muscle (CCD). CCD is an autosomal dominant congenital myopathy, but a severe autosomal recessive form also exists. Defects in RYR1 are the cause of multiminicore disease with external ophthalmoplegia (MMDO), congenital myopathy with fiber-type disproportion (CFTD). Defects in RYR1 may be a cause of Samaritan myopathy, a congenital myopathy with benign course. Belongs to the ryanodine receptor (TC 1.A.3.1) family. RYR1 subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Transporter; Transporter, ion channel; Membrane protein, integral; Membrane protein, multi-pass; Channel, calcium Chromosomal Location of Human Ortholog: 19q13.1 Cellular Component: I band; sarcoplasmic reticulum membrane; smooth endoplasmic reticulum; sarcoplasmic reticulum; integral to plasma membrane; cytoplasm; junctional membrane complex; T-tubule; plasma membrane; cell cortex Molecular Function: voltage-gated calcium channel activity; calmodulin binding; protein binding; protease binding; calcium-release channel activity; calcium channel activity; ryanodine-sensitive calcium-release channel activity Biological Process: skin development; cytosolic calcium ion homeostasis; muscle contraction; calcium ion transport; release of sequestered calcium ion into cytosol; response to hypoxia; skeletal muscle fiber development; release of sequestered calcium ion by sarcoplasmic reticulum into cytosol; transmembrane transport; response to caffeine Disease: Minicore Myopathy With External Ophthalmoplegia; Malignant Hyperthermia, Susceptibility To, 1; Central Core Disease Of Muscle; Myopathy, Congenital, With Fiber-type Disproportion
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