RYR2 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	RYR2, Blocking Peptide
Full Product Name	RYR2 Blocking Peptide
Product Gene Name	RYR2 blocking peptide
Product Synonym Gene Name	RYR2
Product Synonym Names	ARVC2; ARVD2; Cardiac muscle ryanodine receptor; Cardiac muscle ryanodine receptor-calcium release channel; hRYR-2; ryanodine receptor 2 (cardiac); Ryanodine receptor 2; RyR; RYR-2; RyR2; RYR2_HUMAN; Type 2 ryanodine receptor; VTSIP
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	RYR2 peptide (MBS9617664) is used for blocking the activity of RYR2 antibody (MBS9613584)
Molecular Weight	564,567 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (237205702..237997288). Location: 1q43
OMIM	180902
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for RYR2 blocking peptide	Blocking/Control
Related Product Information for RYR2 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of RYR2 blocking peptide 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 RYR2 purchase	MBS9617664 is a blocking peptide targeting RYR2.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RYR2. It may not necessarily be applicable to this product.

NCBI GI #	112799847
NCBI GeneID	6262
NCBI Accession #	NP_001026.2

UniProt Primary Accession #	Q92736
UniProt Secondary Accession #	Q15411; Q546N8; Q5T3P2
UniProt Related Accession #	Q92736
GenBank Nucleotide #	NM_001035.2
NCBI Official Full Name	ryanodine receptor 2
NCBI Official Synonym Full Names	ryanodine receptor 2 (cardiac)
NCBI Official Symbol	RYR2
NCBI Official Synonym Symbols	RyR; ARVC2; ARVD2; RYR-2; VTSIP
UniProt Protein Name	Ryanodine receptor 2
UniProt Synonym Protein Names	Cardiac muscle ryanodine receptor; Cardiac muscle ryanodine receptor-calcium release channel; Type 2 ryanodine receptor
Protein Family	Ryanodine receptor
UniProt Gene Name	RYR2
UniProt Synonym Gene Names	RYR-2; RyR2; hRYR-2
UniProt Entry Name	RYR2_HUMAN
NCBI Protein Information	ryanodine receptor 2; type 2 ryanodine receptor; islet-type ryanodine receptor; kidney-type ryanodine receptor; cardiac-type ryanodine receptor; cardiac muscle ryanodine receptor-calcium release channel
NCBI Summary for RYR2	This gene encodes a ryanodine receptor found in cardiac muscle sarcoplasmic reticulum. The encoded protein is one of the components of a calcium channel, composed of a tetramer of the ryanodine receptor proteins and a tetramer of FK506 binding protein 1B proteins, that supplies calcium to cardiac muscle. Mutations in this gene are associated with stress-induced polymorphic ventricular tachycardia and arrhythmogenic right ventricular dysplasia. [provided by RefSeq, Jul 2008]
UniProt Comments for RYR2	RYR2: ryanodine receptor calcium release channel. Regulates communication between transverse-tubules and sarcoplasmic reticulum. Contraction of cardiac muscle is triggered by release of calcium ions from SR following depolarization of T-tubules. Phosphorylation by PKA dissociates FKBP12.6 from RYR2. Two splice isoforms have been described. Protein type: Transporter, ion channel; Membrane protein, integral; Membrane protein, multi-pass; Channel, ligand-gated; Transporter Chromosomal Location of Human Ortholog: 1q43 Cellular Component: sarcoplasmic reticulum membrane; protein complex; smooth endoplasmic reticulum; membrane; sarcoplasmic reticulum; plasma membrane; Z disc Molecular Function: calmodulin binding; calcium-induced calcium release activity; identical protein binding; protein binding; enzyme binding; protein self-association; calcium-release channel activity; calcium channel activity; calcium ion binding; intracellular ligand-gated calcium channel activity; ryanodine-sensitive calcium-release channel activity Biological Process: positive regulation of sequestering of calcium ion; cytosolic calcium ion homeostasis; regulation of heart rate; calcium-mediated signaling; positive regulation of heart rate; response to redox state; Wnt receptor signaling pathway through beta-catenin; release of sequestered calcium ion by sarcoplasmic reticulum into cytosol; response to caffeine; BMP signaling pathway; cellular calcium ion homeostasis; release of sequestered calcium ion into cytosol; calcium ion transport; response to hypoxia; detection of calcium ion; transmembrane transport; cardiac muscle contraction Disease: Ventricular Tachycardia, Catecholaminergic Polymorphic, 1, With Or Without Atrial Dysfunction And/or Dilated Cardiomyopathy; Arrhythmogenic Right Ventricular Dysplasia, Familial, 2
Research Articles on RYR2	**1.** The cardiac ryanodine receptor gene contains most of the catecholaminergic polymorphic ventricular tachycardia mutations.

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