

Anti-RyR-2 antibody



Description	Rabbit polyclonal to RyR-2.
Model	STJ95561
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC
Immunogen	Synthesized peptide derived from human RyR-2 around the non-phosphorylation site of S2808.
Immunogen Region	2750-2830 aa
Gene ID	6262
Gene Symbol	RYR2
Dilution range	IHC 1:100-1:300IF 1:200-1:1000ELISA 1:5000
Specificity	RyR-2 Polyclonal Antibody detects endogenous levels of RyR-2 protein.
Tissue Specificity	Detected in heart muscle (at protein level). Heart muscle, brain (cerebellum and hippocampus) and placenta.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Ryanodine receptor 2 RYR-2 RyR2 hRYR-2 Cardiac muscle ryanodine receptor Cardiac muscle ryanodine receptor-calcium release channel Type 2 ryanodine receptor

Molecular Weight	564.498 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:10484OMIM:180902
Alternative Names	Ryanodine receptor 2 RYR-2 RyR2 hRYR-2 Cardiac muscle ryanodine receptor Cardiac muscle ryanodine receptor-calcium release channel Type 2 ryanodine receptor
Function	Calcium channel that mediates the release of Ca(2+) from the sarcoplasmic reticulum into the cytoplasm and thereby plays a key role in triggering cardiac muscle contraction. Aberrant channel activation can lead to cardiac arrhythmia. In cardiac myocytes, calcium release is triggered by increased Ca(2+) levels due to activation of the L-type calcium channel CACNA1C. The calcium channel activity is modulated by formation of heterotetramers with RYR3. Required for cellular calcium ion homeostasis. Required for embryonic heart development.
Sequence and Domain Family	The calcium release channel activity resides in the C-terminal region while the remaining part of the protein resides in the cytoplasm.
Cellular Localization	Sarcoplasmic reticulum membrane Membrane Sarcoplasmic reticulum. The number of predicted transmembrane domains varies between orthologs, but both N-terminus and C-terminus seem to be cytoplasmic.
Post-translational Modifications	Channel activity is modulated by phosphorylation. Phosphorylation at Ser-2808 and Ser-2814 increases the open probability of the calcium channel. Phosphorylation is increased in failing heart, leading to calcium leaks and increased cytoplasmic Ca(2+) levels. Phosphorylation at Ser-2031 by PKA enhances the response to luminal calcium.