

## Rabbit RYR2 Polyclonal Antibody | anti-RYR2 antibody

Phospho-RYR2 (Ser2808) Antibody

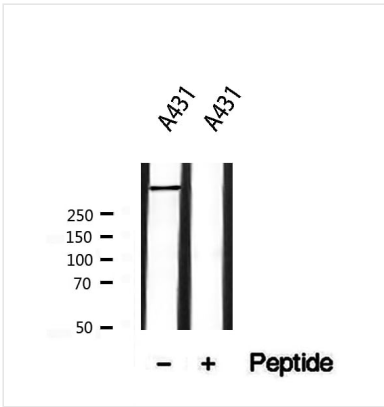
| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                       |
|-----------|--------|-------------------|------------------------------------|
| AAA328554 | Rabbit | Human, Mouse, Rat | Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

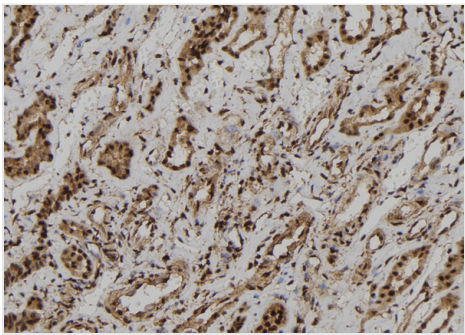
RYR2; Polyclonal Antibody; Phospho-RYR2 (Ser2808) Antibody; ARVC2; ARVD2; Cardiac muscle ryanodine receptor; Cardiac muscle ryanodine receptor-calcium release channel; hRYR-2; ryanodine receptor 2 (cardiac); Ryanodine receptor 2; RyR; RYR-2; RyR2; RYR2\_HUMAN; Type 2 ryanodine receptor; VTSIP; anti-RYR2 antibody

### PRODUCT SPECIFICATIONS

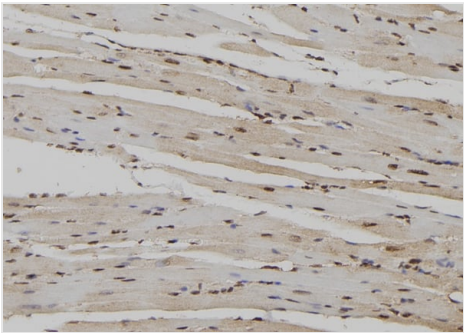
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|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                        |
| Reactivity                                     | Human, Mouse, Rat                                                                                                                                                             |
| Clonality                                      | Polyclonal                                                                                                                                                                    |
| Isotype                                        | IgG                                                                                                                                                                           |
| Specificity                                    | Phospho-RYR2(Ser2808) Antibody detects endogenous levels of RYR2.                                                                                                             |
| Purity/Purification                            | Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.                                            |
| Form/Format                                    | Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                                                   |
| Concentration                                  | 1mg/ml (varies by lot)                                                                                                                                                        |
| Sequence Length                                | 4967                                                                                                                                                                          |
| Applicable Applications for anti-RYR2 antibody | IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                 |
| Immunogen                                      | A synthesized peptide derived from human RYR2 around the phosphorylation site of Ser2808.                                                                                     |
| Tissue Specificity                             | Detected in heart muscle (at protein level). Heart muscle, brain (cerebellum and hippocampus) and placenta.                                                                   |
| Subcellular Location                           | Sarcoplasmic Reticulum Membrane. Membrane. The number of predicted transmembrane domains varies between orthologs, but both N-terminus and C-terminus seem to be cytoplasmic. |
| Preparation and Storage                        | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                                                             |



**WB (Western Blot)**  
Western blot analysis of extracts from A431, using Phospho-RYR2(Ser2808) Antibody.



**IHC (Immunohistochemistry)**  
At 1/100 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



**IHC (Immunohistochemistry)**  
At 1/100 staining mouse heart tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

ADDITIONAL INFORMATION

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-RYR2 antibody</b> | <p>Description: Calcium channel that mediates the release of Ca2+ 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 Ca2+ 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.</p> <p>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 Ca2+ levels. Phosphorylation at Ser-2031 by PKA enhances the response to luminal calcium.</p> <p>Subunit Structure: Homotetramer. Can also form heterotetramers with RYR1 and RYR3 (By similarity). Interacts with FKBP1A and FKBP1B; these interactions may stabilize the channel in its closed state and prevent Ca2+ leaks. Interacts with CALM and S100A1; these interactions regulate channel activity. Identified in a complex composed of RYR2, FKBP1B, PKA catalytic subunit, PRKAR2A, AKAP6, and the protein phosphatases PP2A and PP1. Interacts directly with FKBP1B, PKA, PP1 and PP2A. Interacts with SELENON (By similarity).</p> <p>Similarity: The calcium release channel activity resides in the C-terminal region while the remaining part of the protein resides in the cytoplasm. Belongs to the ryanodine receptor (TC 1.A.3.1) family. RYR2 subfamily.</p> |
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NCBI AND UNIPROT INFORMATION

|             |                           |
|-------------|---------------------------|
| NCBI GI #   | <a href="#">112799847</a> |
| NCBI GeneID | <a href="#">6262</a>      |

|                                  |                                         |
|----------------------------------|-----------------------------------------|
| NCBI Accession #                 | <a href="#">NP_001026.2</a>             |
| NCBI GenBank Nucleotide #        | <a href="#">NP_001026.2</a>             |
| UniProt Accession #              | <a href="#">Q92736</a>                  |
| Molecular Weight                 | Observed: 564 kDa<br>Predicted: 565 kDa |
| NCBI Official Full Name          | ryanodine receptor 2                    |
| NCBI Official Synonym Full Names | ryanodine receptor 2                    |
| NCBI Official Symbol             | RYR2                                    |
| NCBI Official Synonym Symbols    | RyR; ARVC2; ARVD2; RYR-2; VTSIP         |
| NCBI Protein Information         | ryanodine receptor 2                    |
| UniProt Protein Name             | Ryanodine receptor 2                    |
| UniProt Gene Name                | <b>RYR2</b>                             |
| UniProt Synonym Gene Names       | RYR-2; RyR2; hRYR-2                     |
| UniProt Entry Name               | RYR2_HUMAN                              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ryr2-antibody-immunohistochemistry-western-blot-elisa/328554>