

# Ryanodine receptor monoclonal antibody (C3-33)

The ryanodine receptor (RyR) is the channel responsible for the release of calcium from the sarcoplasmic reticulum (SR) in muscle cells and also plays a role in calcium regulation in non-muscle cells. The RyR exists as a homotetramer and is predicted to have a short cytoplasmic C-terminus and 4-10 transmembrane domains; the remainder of the protein, termed the "foot" region is located in the cytoplasm between the T-tubule and the SR. The mammalian RyR is the product of three different genes: RyR-1, which is expressed predominantly in skeletal muscle and areas of the brain, RyR-2, which is expressed predominantly in the heart muscle but also found in the stomach, endothelial cells and diffuse areas of the brain, and RyR-3 which is found in smooth muscle and the brain (striatum, thalamus and hippocampus).

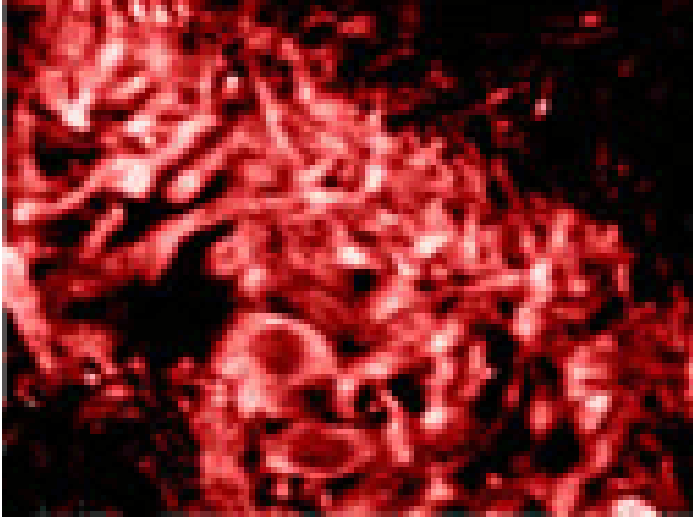
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**Figure:** Immunolocalization of ryanodine receptor 1 (RyR1) in rat brain hippocampus using Monoclonal Antibody to Ryanodine Receptor (C3-33) (Prod. No. ALX-804-015).

## Handling & Storage

**Handling** Avoid freeze/thaw cycles.

**Long Term Storage** -20°C

**Shipping** Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

**Alternative Name** RyR

**Application** Flow Cytometry, ICC, IHC (FS), IHC (PS), IP, WB

**Application Notes** Detects a band of 565kDa by Western blot. In non-mammalian vertebrates, a doublet is seen at 565kDa representing the  $\alpha$  and  $\beta$  isoforms of the receptor.

**Clone** C3-33

**Crossreactivity** Cross-reacts weakly with RyR-1.

**Formulation** Liquid. In PBS containing 0.05% sodium azide.

**Host** Mouse

**Immunogen** Dog cardiac RyR (ryanodine receptor).

**Isotype** IgG1

**Recommendation Dilutions/Conditions** Immunocytochemistry (1:100-1:200) Immunohistochemistry (frozen sections, 1  $\mu$ g/ml) Immunohistochemistry (paraffin sections, 1  $\mu$ g/ml) Western Blot (1  $\mu$ g/ml) Suggested dilutions/conditions may not be available for all applications. Optimal conditions must be determined individually for each application.

**Species Reactivity** Amphibian, Chicken, Dog, Fish, Guinea pig, Human, Mouse, Rabbit, Rat

**UniProt ID** Q92736 (human RYR2)

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ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)