Anti-RYR1 Antibody

ER1803-19

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	Dot Blot, IHC-P, FC
Molecular Wt:	Predicted band size: 565 kDa

Description: Calcium channel that mediates the release of Ca2+ from the sarcoplasmic reticulum into the cytoplasm and thereby plays a key role in triggering muscle contraction following depolarization of T-tubules. Repeated very high-level exercise increases the open probability of the channel and leads to Ca2+ leaking into the cytoplasm. Can also mediate the release of Ca2+ from intracellular stores in neurons, and may thereby promote prolonged Ca2+ signaling in the brain. Required for normal embryonic development of muscle fibers and skeletal muscle. Required for normal heart morphogenesis, skin development and ossification during embryogenesis.

Immunogen: Synthetic peptide within Human RYR1 aa 1,354-1,403 / 5,038.

Positive control: Human fetal skeletal muscle tissue, mouse cerebellum tissue, mouse skeletal muscle tissue, rat skeletal muscle tissue, SiHa.

Subcellular location: Sarcoplasmic reticulum membrane.

Database links: SwissProt: P21817 Human | E9PZQ0 Mouse | F1LMY4 Rat

Recommended Dilutions:

Dot Blot	1:500-1:1,000
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

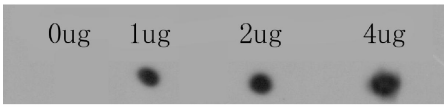

Fig1: Dot blot analysis of anti-RYR1 immunization peptide on PVDF. 1ug, 2ug and 4ug peptides were given in this test. Anti-RYR1 antibody was diluted with 1/500.

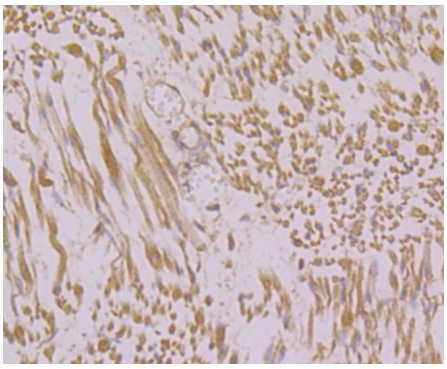

Fig2: Immunohistochemical analysis of paraffin-embedded human fetal skeletal muscle tissue using anti-RYR1 antibody. Counter stained with hematoxylin.

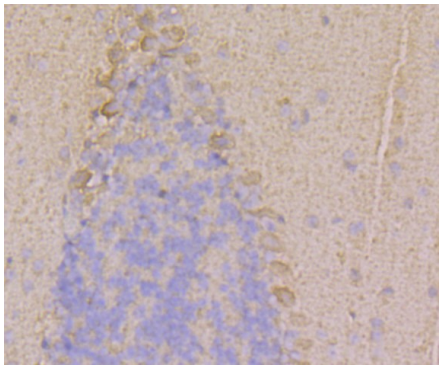

Fig3: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue using anti-RYR1 antibody. Counter stained with hematoxylin.

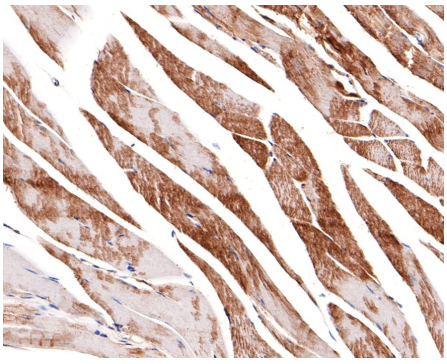

Fig4: Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue with Rabbit anti-RYR1 antibody (ER1803-19) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER1803-19) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

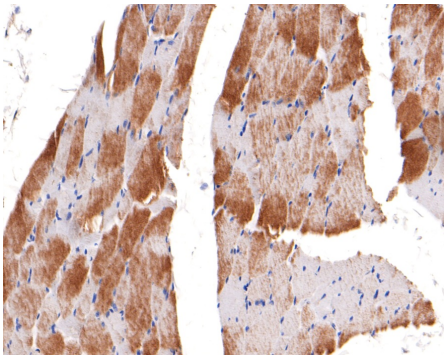

Fig5: Immunohistochemical analysis of paraffin-embedded rat skeletal muscle tissue with Rabbit anti-RYR1 antibody (ER1803-19) at 1/600 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER1803-19) at 1/600 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

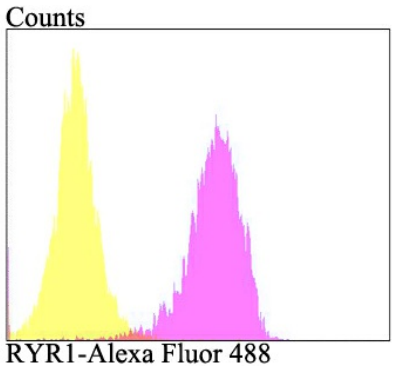

Fig6: Flow cytometric analysis of SiHa cells with RYR1 antibody at 1/100 dilution (fuchsia) compared with an unlabelled control (cells without incubation with primary antibody; yellow). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Tilgen N et al. Identification of four novel mutations in the C-terminal membrane spanning domain of the ryanodine receptor 1: association with central core disease and alteration of calcium homeostasis. Hum Mol Genet 10:2879-2887 (2001).
2. Monnier N et al. Correlations between genotype and pharmacological, histological, functional, and clinical phenotypes in malignant hyperthermia susceptibility. Hum Mutat 26:413-425 (2005).