SANTA CRUZ BIOTECHNOLOGY, INC.

RyR (1-300): sc-4521 WB

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dihydropyridine receptor (DHPR) is a surface membrane protein critical for the excitation-contraction coupling of striated muscle. DHPR and the sarcoplasmic reticulum ryanodine receptor (RyR) are two key components of the intracellular junctions, where depolarization of the surface membrane is converted into the release of Ca^{2+} from internal stores. The α 1-subunit of the DHPR contains a cytoplasmic loop which is thought to be involved in the interactions with RyR. Phosphorylation of the DHPR alpha 1-subunit is also thought to play a role in the functional interaction of DHPR and RyR. Mutation in DHPR α 1 results in excitation-contraction uncoupling, leading to muscular dysgenesis, a complete inactivity in developing skeletal muscles. Cells that do not express RyR also lack excitation-contraction coupling and exhibit a several-fold reduction in Ca^{2+} current density.

REFERENCES

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SOURCE

RyR (1-300) is expressed in *E. coli* as a 60 kDa tagged fusion protein corresponding to amino acids 1-300 of RyR of human origin.

PRODUCT

RyR (1-300) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

RyR (1-300) is suitable as a Western blotting control for sc-8170 and sc-13942.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

For research use only, not for use in diagnostic procedures.