



Badrilla, Leeds Innovation Centre, 103
Clarendon Road, Leeds LS2 9DF, UK

Tel: +44-(0)1937-572179
Fax: +44-(0)1937-573168
e-mail: info@badrilla.com

A010-32 anti-RYR2 phospho-Ser2030 50µl

Background: The ryanodine receptor (RyR2) is a Ca^{2+} channel of cardiac muscle that plays a central role in EC coupling. The binding of Ca^{2+} to RyR2 opens the channel and Ca^{2+} stored in the SR moves through the channel into the cytosol to initiate muscle contraction (Bers, 2002). PKA, and not CaMKII, was able to phosphorylate Ser-2030 of RYR2 (Xiao et al., 2005) in vitro and in isolated cardiac myocyte cells.

Description: Lyophilised rabbit polyclonal serum containing IgG antibody specific to RyR2 phospho-Ser2030 (PKA site).

Immunogen: Synthetic peptide (TIRGRLLS(PO₃H₂)LVE₂₀₃₃) corresponding to amino acids surrounding the phosphorylated serine residue at position 2030 of RYR2 (human).

Specificity and Species Cross Reactivity: The antibody recognises RYR2 phosphorylated at serine 2030 and binding is blocked in the presence of a peptide containing the phospho-Ser2030 epitope.

Applications: Western blot (1:1000 dilution)

Storage: Store antibody desiccated at 4C when dry, and frozen (-20C or -80C) in small aliquots when reconstituted with 50µl deionised water.

Epitope sequence alignment RYR2 (2810-2819)

Epitope	TIRGRLLSLVE
Human Ser-2030	TIRGRLLSLVE
Mouse Ser-2030	TIRGRLLSLVE
Rabbit Ser-2030	TIRGRLLSLVE
Rat Ser-2030	TIRGRLLSLVE

references:

Bers, D. M. (2002) *Nature* 415, 198-205.
Xiao, B., Jiang, M.T., Zhao, M., Yang, D., Sutherland, C., Lai, A.F., Walsh, M.P., Warltier, D.C., Cheng, H. & Chen, S.R.W. (2005) *Circ. Res.* 96, 847-55

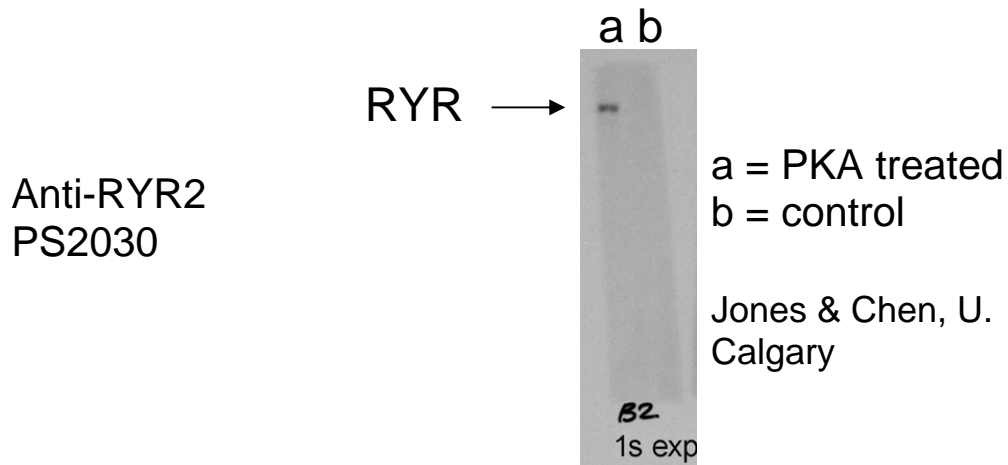


Figure 1: Detection of recombinant RYR2 phosphorylated at Ser2030 HEK cells expressing recombinant human RYR2 were lysed and the lysate phosphorylated by PKA for 1 min at 37C (sample a). Control lysates were incubated without kinase or ATP (b). 10µg protein was separated by 6% SDS-PAGE electrophoresis and transferred to PVDF membrane. Ser-2030 phosphorylated RYR2 was detected with anti-RYR2 phospho-Ser2030 (A010-32: 1:1000) detected with peroxidase based chemiluminescence.