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#3763

## IP3 Receptor Antibody

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 320	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q14643	<b>Entrez-Gene Id:</b> 3708
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### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation

#### Dilution

1:1000  
1:50

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

IP3 Receptor Antibody detects endogenous levels of total IP3 receptor type 1 protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Met2750 of human IP3 receptor. Antibodies are purified by protein A chromatography.

### Background

Inositol 1,4,5-triphosphate receptor, also known as IP3R or InsP3R, is a member of the intracellular calcium release channel family and is located in the endoplasmic reticulum. IP3R functions as a Ca<sup>2+</sup> release channel for intracellular stores of calcium ions. There are three types of IP3 receptors (IP3R1, 2, and 3) that require the second messenger inositol 1,4,5-triphosphate (IP3) for activation (1). Four individual subunits homo- or hetero-oligomerize to form the receptor's functional channel (2). Phosphorylation of IP3R1 at Ser1756 by cyclic AMP-dependent protein kinase A (PKA) regulates the sensitivity of IP3R1 to IP3 and may be a mode of regulation for Ca<sup>2+</sup> release (3,4). IP3R1-mediated Ca<sup>2+</sup> release appears to have an effect on the induction of long term depression (LTD) in Purkinje cells (5).

### Background References

- Joseph, S.K. (1996) *Cell Signal* 8, 1-7.
- Galvan, D.L. et al. (1999) *J Biol Chem* 274, 29483-92.
- Haug, L.S. et al. (1999) *J Biol Chem* 274, 7467-73.
- DeSouza, N. et al. (2002) *J Biol Chem* 277, 39397-400.
- Inoue, T. et al. (1998) *J Neurosci* 18, 5366-73.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation

### Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat

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