

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C  
#8548

## Phospho-IP3 Receptor (Ser1756) (D10E3) Rabbit mAb

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 IgG	<b>UniProt ID:</b> #Q14643	<b>Entrez-Gene Id:</b> 3708
-------------------------------	-----------------------------	-----------------------------------	-------------------------	--------------------------------------	-------------------------------	--------------------------------

### 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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

Phospho-IP3 Receptor (Ser1756) (D10E3) Rabbit mAb detects endogenous levels of IP3 receptor only when phosphorylated at Ser1756.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser1764 of human IP3 receptor protein. This site is equivalent to Ser1756 in the rat IP3 receptor sequence.

### 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

### Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

### Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for

Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.