Technical Data Sheet

# Purified Mouse Anti-IP3R-3

## Product Information

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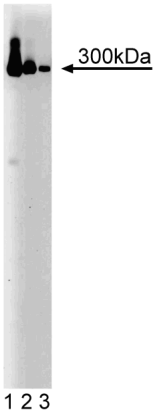
|---|---|
| **Material Number:** | **610313** |
| **Alternate Name:** | Inositol 1,4,5-triphosphate receptor type III |
| **Size:** | 150 µg |
| **Concentration:** | 250 µg/ml |
| **Clone:** | 2/IP3R-3 |
| **Immunogen:** | Human IP3R-3 aa. 22-230 |
| **Isotype:** | Mouse IgG2a |
| **Reactivity:** | QC Testing: Human<br>Tested in Development: Cow, Dog, Mouse, Rat |
| **Target MW:** | 300 kDa |
| **Storage Buffer:** | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

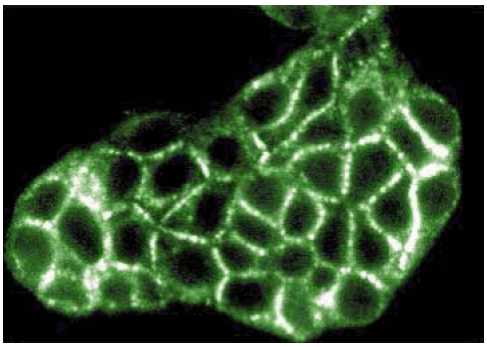
## Description

Inositol 1,4,5-triphosphate (IP3) functions as a second messenger for many hormones, growth factors, and neurotransmitters. IP3 causes the release of Ca2+ from intracellular stores by binding specific receptors that are coupled to Ca2+ channels. A number of studies have identified a family of at least four IP3 receptors (IP3R). The type III receptor (IP3R-3) has been isolated and characterized in human and rat. IP3 receptors are commonly localized in the endoplasmic reticulum, but have also been identified in the nucleus and the plasma membrane. Co-expression of different IP3 receptors is detected in most tissues and cell lines. Although these receptors appear to have a similar specificity for inositol phosphates, the different receptors have been reported to have different affinities for IP3 as follows: type II > type I > type III.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.




***Western blot analysis of IP3R-3 on a HeLa cell lysate.*** *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the anti- IP3R-3 antibody.*



***Immunofluorescence staining of MDCK cells (canine kidney; ATCC CCL-34).***

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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## Application Notes

**Application**

| | |
|---|---|
| Western blot | Routinely Tested |
| Immunofluorescence | Tested During Development |
| Immunoprecipitation | Tested During Development |
| Immunohistochemistry-formalin (antigen retrieval required) | Not Recommended |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 611449 | HeLa Cell Lysate | 500 µg | (none) |
| 554002 | HRP Goat Anti-Mouse Igs | 1.0 ml | (none) |
| 554001 | FITC Goat Anti-Mouse Igs | 0.5 mg | Polyclonal |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References


Blondel O, Takeda J, Janssen H, Seino S, Bell GI. Sequence and functional characterization of a third inositol trisphosphate receptor subtype, IP3R-3, expressed in pancreatic islets, kidney, gastrointestinal tract, and other tissues. *J Biol Chem.* 1993; 268(15):11356-11363.(Biology)

Leite MF, Thrower EC, Echevarria W, et al. Nuclear and cytosolic calcium are regulated independently. *Proc Natl Acad Sci U S A.* 2003; 100(5):2975-2980.(Biology: Immunofluorescence, Western blot)

Maranto AR. Primary structure, ligand binding, and localization of the human type 3 inositol 1,4,5-trisphosphate receptor expressed in intestinal epithelium. *J Biol Chem.* 1994; 269(2):1222-1230.(Biology)

Pin CL, Rukstalis JM, Johnson C, Konieczny SF. The bHLH transcription factor Mist1 is required to maintain exocrine pancreas cell organization and acinar cell identity. *J Cell Biol.* 2001; 155(4):519-530.(Biology: Western blot)

Zanner R, Hapfelmeier G, Gratzl M, Prinz C. Intracellular signal transduction during gastrin-induced histamine secretion in rat gastric ECL cells. *Am J Physiol Cell Physiol.* 2002; 282(2):C374-C382.(Biology: Immunofluorescence)