

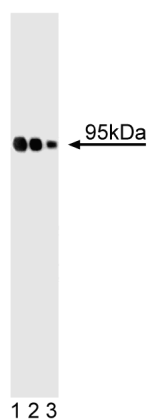
Technical Data Sheet

Purified Mouse Anti-GIT1**Product Information**

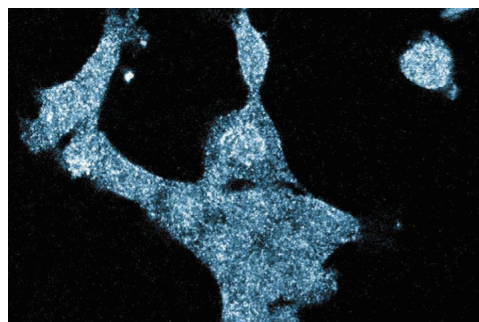
Material Number:	611396
Alternate Name:	G protein-coupled receptor kinase interactor 1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	13/GIT1
Immunogen:	Rat GIT1 aa. 664-770
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human
Target MW:	95 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Activation of adrenergic receptors (AR), such as β 2AR leads to activation of heterotrimeric G proteins and recruitment of G protein-coupled receptor kinases (GRKs). Phosphorylation of the activated receptor by GRKs promotes the binding of arrestin protein which prevents further G protein activation. GRK interactor 1 (GIT1) was identified in a yeast two-hybrid screen for proteins that bind GRK2. GIT1 has an N-terminal Zn²⁺ finger-like motif involved in GTPase activating activity and multiple ankyrin repeat units. In vitro, GIT1 is a GTPase-activating protein (GAP) for the ADP ribosylation factor (ARF) family of small GTP-binding proteins. In rat, GIT1 is widely expressed with the highest levels in the testis and lowest levels in the liver and spleen. Overexpression of GIT1 in HEK293 cells causes reduced β 2AR signaling and increased receptor phosphorylation as a result of reduced receptor internalization and resensitization. In addition, GIT1 interacts directly with paxillin and the PIX exchange factors, and indirectly with PAKs, Rac1, and Nck. GIT proteins are also now known to be PIP3-stimulated GAPs for ARF6. Thus, GIT1 activation of ARF proteins may involve cell signaling pathways that are important for endocytosis, cell adhesion, and cytoskeletal dynamics.



Western blot analysis of GIT1 on a rat cerebrum lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1: 1000 dilution of the mouse anti-GIT1 antibody.



Immunofluorescence staining of A431 cells (Human epithelial carcinoma; ATCC CRL-1555) with the mouse anti-GIT1 antibody.

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes**Application**

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharming/en/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

Premont RT, Claing A, Vitale N. beta2-Adrenergic receptor regulation by GIT1, a G protein-coupled receptor kinase-associated ADP ribosylation factor GTPase-activating protein. *Proc Natl Acad Sci U S A*. 1998; 95(24):14082-14087. (Biology)

Zhao ZS, Manser E, Loo TH, Lim L. Coupling of PAK-interacting exchange factor PIX to GIT1 promotes focal complex disassembly. *Mol Cell Biol*. 2000; 20(17):6354-6363. (Biology)