

Technical Data Sheet

Purified Mouse Anti-GBF1

Product Information

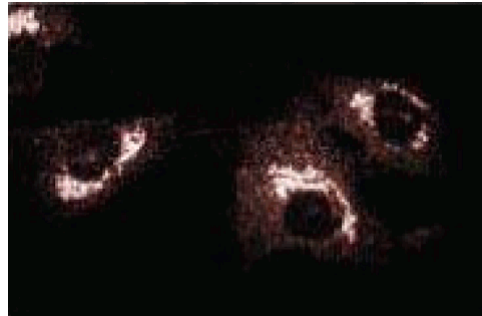
Material Number:	612116
Alternate Name:	Golgi-specific Brefeldin A (BFA)-resistance Factor 1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	25/GBF1
Immunogen:	Human GBF1 aa. 1266-1379
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	206 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The Golgi apparatus is a complex and dynamic organelle that functions in protein sorting and modification. Numerous structural and regulatory proteins are involved in the budding, docking, and fusion of Golgi-directed vesicles. Golgi-specific Brefeldin A (BFA)-resistance Factor (GBF1) is a guanine nucleotide exchange factor that contains a centrally located Sec7 domain, and a proline-rich region at the C-terminus. The Sec7 domain is commonly found in a variety of secretory proteins, and is required for activation of ARFs. GBF1 mRNA is ubiquitously expressed, and GBF1 protein localizes to the Golgi, as well as to perinuclear structures that contain COPI. BFA is a fungal heterocyclic lactone that disrupts membrane recruitment of ARFs. This action blocks protein secretion, and changes the morphology of various organelles, such as the Golgi. Overexpression of GBF1 suppresses BFA-induced changes in Golgi morphology, ARF activation, and coat protein recruitment. GBF1 interacts preferentially with ARF5 in the presence of Mg²⁺. Thus, GBF1 is a Golgi-specific guanine nucleotide exchange factor that activates ARFs through a mechanism that interferes with BFA action.



Western blot analysis of GBF1 on a HeLa cell lysate
(Human cervical epitheloid carcinoma; ATCC CCL-2.2). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-GBF1 antibody.



Immunofluorescence staining of BC3H1 cells (Mouse brain smooth muscle-like cells; ATCC CRL-1443).

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

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
611449	HeLa Cell 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. Please refer to www.bdbiosciences.com/pharming/en/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

Claude A, Zhao BP, Kuziemyky CE, et al. GBF1: A novel Golgi-associated BFA-resistant guanine nucleotide exchange factor that displays specificity for ADP-ribosylation factor 5. *J Cell Biol.* 1998; 146(1):71-84.(Biology)
Mansour SJ, Herbrick JA, Scherer SW, Melancon P. Human GBF1 is a ubiquitously expressed gene of the sec7 domain family mapping to 10q24. *Genomics.* 1998; 54(2):323-327.(Biology)