

Technical Data Sheet

Purified Mouse Anti-Human GGA3**Product Information**

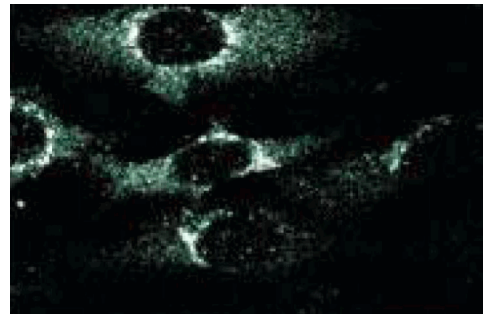
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|-------------------------|--|
| Material Number: | 612310 |
| Size: | 50 µg |
| Concentration: | 250 µg/ml |
| Clone: | 8/GGA3 |
| Immunogen: | Human GGA3 aa. 424-542 |
| Isotype: | Mouse IgG1 |
| Reactivity: | QC Testing: Human |
| Target MW: | 90 kDa |
| Storage Buffer: | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

Description

The ADP-ribosylation factors (ARFs) are a family of small GTPases in the ARF superfamily that include ARFs and ARF-like (ARLs) proteins. At least six ARFs have been identified in humans: ARF1, ARF2, ARF3, ARF4, ARF5, and ARF6. ARFs are involved in intravesicular acidification and fusion of microsomal vesicles, endosome fusion, nuclear membrane assembly, and formation of clathrin-coated vesicles. GGAs are ARF-binding proteins that act as adaptor coat proteins associated with the Golgi complex. GGA1, GGA2, and GGA3 are homologous proteins that contain N-terminal VHS domains, a GGA and TOM homology region (GAT), and a C-terminal region homologous to the ear domain of γ -adaptins. GGAs co-localize with Golgi markers in the TGN, and GGA3 is found present in coated vesicles and buds associated with the TGN. The GAT domain of GGA3 facilitates ARF1 binding, Golgi localization, and dissociation from ARF-regulated membranes. The C-terminal region of GGAs bind to MAPIA and rabaptin-5, which are binding partners of γ -adaptins. Overexpression of GGAs alters the distribution of markers normally found in the TGN. Thus, GGAs are ARF binding proteins that regulate vesicle dynamics in the TGN.



Western blot analysis of GGA3 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10,000 dilution of the mouse anti-human GGA3 antibody.



Immunofluorescence staining of human endothelial cells.

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 |
|----------------|-------------------------|--------|------------|
| 611451 | Jurkat 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

Boman AL, Zhang C, Zhu X, Kahn RA. A family of ADP-ribosylation factor effectors that can alter membrane transport through the trans-Golgi. *Mol Biol Cell*. 2000; 11(4):1241-1255.(Biology)

Dell'Angelica EC, Puertollano R, Mullins C, et al. GGAs: a family of ADP ribosylation factor-binding proteins related to adaptors and associated with the Golgi complex. *J Cell Biol*. 2000; 149(1):81-94.(Biology)

Hirst J, Lui WW, Bright NA, Totty N, Seaman MN, Robinson MS. A family of proteins with gamma-adaptin and VHS domains that facilitate trafficking between the trans-Golgi network and the vacuole/lysosome. *J Cell Biol*. 2000; 149(1):67-80.(Biology)