Technical Data Sheet

Purified Mouse Anti-Gαt

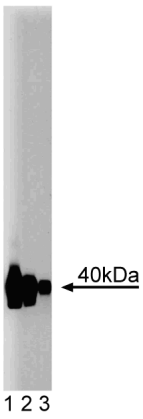
Product Information

Material Number:	**610589**
Alternate Name:	Gα protein transducin
Size:	150 µg
Concentration:	250 µg/ml
Clone:	3/Gαt
Immunogen:	Cow Gαt aa. 282-300
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human, Chicken
Target MW:	40 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

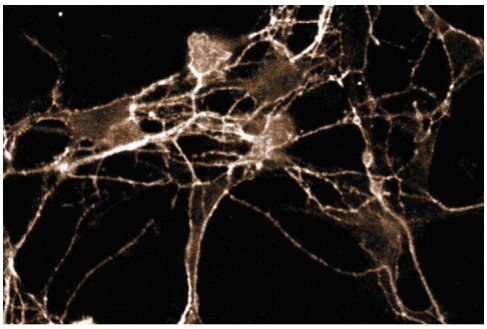
Description

The GTP binding regulatory proteins (G proteins) consist of three subunits: α, β, and γ. These heterotrimeric proteins function at membranes to relay signals from cell surface receptors to intracellular effectors. The α subunit is unique for each G protein and contains the site of GTP binding and hydrolysis, as well as sites for receptor and effector interactions. The βγ subunit complex interacts directly with receptors and the α subunit. The Gα protein transducin (Gαt) contains 350 amino acids and has been extensively studied as a model for G protein function. Gαt requires GTP in order to bind to its effectors. In the process of effector-Gαt binding, GTP is hydrolyzed and the βγ subunits are displaced. The free Gαt-GDP then reassociates with the βγ subunits and re-loads GTP to repeat the cycle.

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 Gαt on a rat cerebrum lysate.
Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-Gαt antibody.



Immunofluorescence staining of rat neurons.

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
Immunohistochemistry	Tested During Development
Immunoprecipitation	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/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. 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

Skiba NP, Bae H, Hamm HE. Mapping of effector binding sites of transducin alpha-subunit using G alpha t/G alpha i1 chimeras. *J Biol Chem.* 1996; 271(1):413-424.(Biology)