Technical Data Sheet

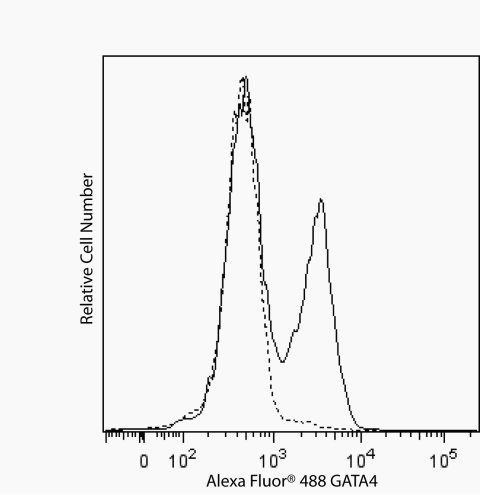
Alexa Fluor® 488 Mouse anti-GATA4

Product Information

Material Number:	**560330**
Size:	50 tests
Vol. per Test:	20 µl
Clone:	L97-56
Immunogen:	Human GATA4 Peptide
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Mouse Reported Reactivity: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The L97-56 monoclonal antibody reacts with GATA4 (GATA-binding protein 4), a member of the GATA family of zinc finger-containing transcription factors that bind to the GATA nucleotide sequence. This ~50-kDa nuclear protein is expressed in mesodermal and definitive endodermal tissues such as the gastrointestinal tract, gonads, and heart. Genetic studies suggest that GATA4 regulates embryonic cardiac development: in mice, disruption of the GATA4 gene leads to defects in heart tube formation, while mutations of GATA4 are associated with atrial septal defects in humans. In the adult heart, GATA4 regulates differentiated gene expression. The roles of GATA4 in endocrine and reproductive functions were recently reviewed.



Flow cytometric analysis of GATA4 on mouse testis, embryonal carcinoma F9 cells. *F9 cells were either treated with retinoic acid/dbcAMP (solid line) or untreated (dashed line). The cells were fixed (BD Cytofix™ buffer Cat. No. 554655) for 10 minutes at 37ºC, permeabilized with BD Phosflow™ Perm Buffer III (Cat. No. 558050) on ice for 30 minutes. The cells were stained with Alexa Fluor® 488 Mouse Anti-GATA4 and incubated in the dark for 30 minutes at room temperature. Flow cytometry was performed on a BD FACSCanto™ II flow cytometry system. This antibody also works in BD Phosflow™ Perm Buffer I and II.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated to Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
558050	Perm Buffer III	125 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Alexa Fluor® 488 fluorochrome emission is collected at the same instrument settings as for fluorescein isothiocyanate (FITC).
3. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**

4. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Oka T, Xu J, Molkentin JD. Re-employment of developmental transcription factors in adult heart disease. *Semin Cell Dev Biol.* 2007; 18(1):117-131. (Biology)
Viger RS, Guittot SM, Anttonen M, Wilson DB, Heikinheimo M. Role of the GATA family of transcription factors in endocrine development, function, and disease. *Mol Endocrinol.* 2008; 22(4):781-789. (Biology)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**