Human GATA-3
Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 634919
Catalog Number: IC63301T
25 Tests

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GATA-3 in flow cytometry.
Source	Monoclonal Mouse IgG_{2B} Clone # 634919
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human GATA-3 Pro135-Ser258 Accession # P23771
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

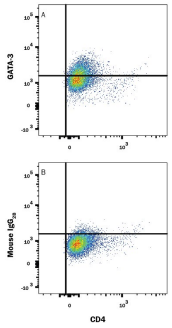
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	5 µL/10^6 cells	See Below

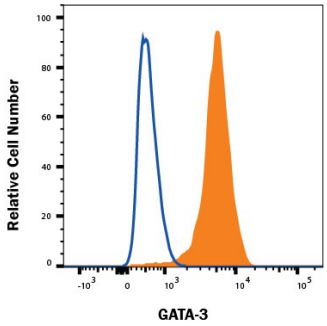
DATA

Intracellular Staining by Flow Cytometry



Detection of GATA-3 in Human PBMCs by Flow Cytometry. Th2-stimulated human peripheral blood mononuclear cells (PBMCs) were stained with Mouse Anti-Human CD4 Alexa Fluor® 700-conjugated Monoclonal Antibody (Catalog # Catalog # FAB3791N) and either (A) Mouse Anti-Human GATA-3 Alexa Fluor® 594-conjugated Monoclonal Antibody (Catalog # IC63301T) or (B) Mouse IgG_{2B}Alexa Fluor 594 Isotype Control (Catalog # Catalog # IC0041T). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # Catalog # FC012). View our protocol for Staining Intracellular Molecules.

Intracellular Staining by Flow Cytometry



Detection of GATA-3 in MCF-7 cell line by Flow Cytometry. MCF-7 human breast carcinoma cell line was stained with Mouse Anti-Human GATA-3 Alexa Fluor® 594-conjugated Monoclonal Antibody (Catalog # IC63301T, filled histogram) or Mouse IgG2BAlexa Fluor 594 Isotype Control (Catalog # IC0041T, open histogram). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012). Staining was performed using our Staining Intracellular Molecules protocol.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

GATA-3 is a 54-60 kDa member of the GATA family of transcription regulating factors. There are currently six mammalian members, each of which binds to a G-A-T-A motif found in gene promoters. Although GATA-3 is traditionally described as being a hematopoietic transcriptional regulator, it has been found in multiple cell types, both embryonic and adult. Postnatal cells reported to express GATA-3 include NK cells, ILCs, NKT cells, B cells, thymocytes (DN, CD4 SP, and CD8 SP) and T cells, plus keratinocytes, sympathetic neurons, renal distal convoluted tubule and mammary duct epithelium. Human GATA-3 is 443 amino acids (aa) in length. It contains two GAGA-type Zn finger domains (aa 263-287 and 317-341) and multiple phosphorylation sites. GATAs as a group are known to either activate, or repress, gene expression, maintain transcriptional activity, and regulate gene expression levels. Within this framework, GATA-3 is best known to drive naïve CD4+ T cells into a Th2 phenotype, induce Th2 proliferation, and inhibit Th1 cell development via T-bet repression. Other effects attributed to GATA-33 include the promotion of Th9 and Treg formation, and the inhibition of Th1, TH17 and B cell development. Over aa 135-258, human and mouse GATA-3 share 94% aa sequence identity.

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