SONY

Product Data Sheet

Alexa Fluor® 647 anti-T-bet

Catalog # / Size: 3824015 / 25 µg
3824020 / 100 µg

Clone: 4B10

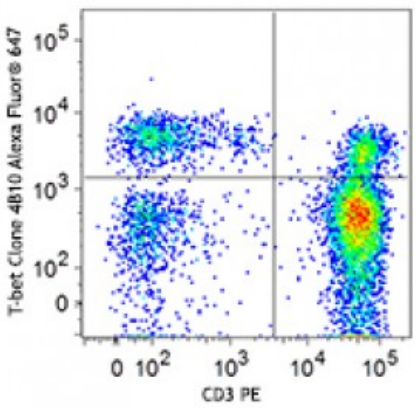
Isotype: Mouse IgG1, κ

Reactivity: Human,Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5



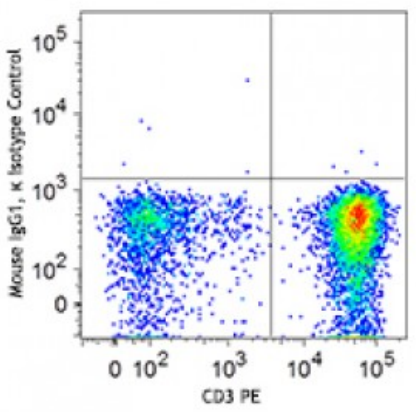
Human peripheral blood lymphocytes were surface stained with CD3 PE and then treated with True-Nuclear™ Transcription Factor Buffer Set (Cat# 424401). Cells were then stained with T-bet (clone 4B10) Alexa Fluor® 647 (top) or mouse IgG1, κ

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining . For flow cytometric staining, the suggested use of this reagent is 1.0 microg per million cells in a volume of 100 microL. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.



Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation2 and immunofluorescence microscopy3.

NOTE: For flow cytometric staining with this clone, True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401) offers improved staining and is highly recommended over the Foxp3 Fix/Perm Buffer Set (Cat. No. 421403) and the Nuclear Factor Fixation and Permeabilization Buffer Set (Cat. No. 422601).

Application References:

1. Szabo SJ, *et al.* 2000. *Cell* 100:655. (ICFC, WB)
2. Hwang ES, *et al.* 2005. *J. Exp. Med.* 202:1289. (ICFC, WB, IP)
3. Neurath MF, *et al.* 2002. *J. Exp. Med.* 195:1129. (IF)
4. Hsieh CY, *et al.* 2012. *J Pharmacol Exp.* 343:125. PubMed.

Description:

T-bet, also known as T-box transcription factor T-bet, is considered to be a "master regulator" of Th1 lymphoid development controlling the production of the cytokine IFN-γ. T-bet is widely expressed in hematopoietic cells including stem cells, NK cells, B cells, and T cells. T-bet is critical for the control of microbial pathogens, and knockout animals show multiple physiologic and inflammatory features characteristic of asthma. T-bet expression is optimally observed after IL-12 stimulation and can be suppressed by addition of the Th2 cytokine IL-4 or neutralization of IL-12.

Antigen References:

1. Szabo SJ, *et al.* 2000. *Cell* 100:655.
2. Szabo SJ, *et al.* 2002. *Science* 295:338.
3. Finotto S, *et al.* 2002. *Science* 295:336.
4. Mullen AC, *et al.* 2001. *Science* 292