SONY

Product Data Sheet

APC/Fire™ 750 anti-human IL-22

Catalog # / Size: 2433565 / 25 tests
2433570 / 100 tests

Clone: 2G12A41

Isotype: Mouse IgG2a, κ

Immunogen: Full length recombinant protein expressed in *E. Coli*

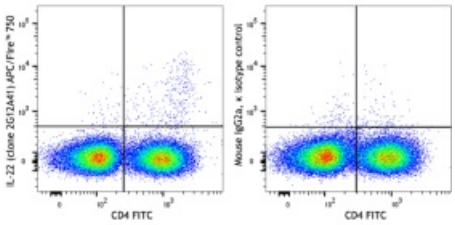
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: II T7

Concentration: Lot-specific



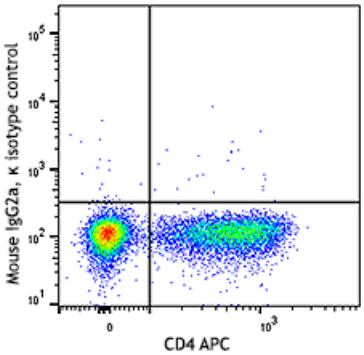
PMA and ionomycin (5 hours in the presence of Brefeldin A) stimulated human peripheral blood mononuclear cells were stained with CD4 FITC, fixed, permeabilized, and stained with APC/Fire™ 750 mouse IgG2a, κ isotype control (right), or APC/Fire™ 750 IL-22 (clone 2G12A41, left).

Applications:

Applications: Intracellular Staining for Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.



Application References:

1. Nagalakshmi ML, *et al.* 2004. *Int. Immunopharmacol.* 5:679.
2. Kebir H,, *et al.* 2007. *Nat. Med.* 13:1173.
3. Gu Y, *et al.* 2008. *Eur. J. Immunol.* 38:1807.
4. Pene Y, *et al.* 20

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Description: IL-22 is a cytokine that is structurally related to IL-10. Originally identified as a murine gene induced by IL-9 in T and mast cells, IL-22 was initially designated ILTIF, also known as the IL-10-related T cell-derived inducible factor. IL-22 belongs to a family of cytokines with limited homology specifically to IL-10, IL-19, IL-20, IL-24, IL-26, the IFN-λs, IL-28A, IL-28B, and IL-29. Human IL-22 shares 79% amino acid identity with murine IL-22 and 25% identity with human IL-10. IL-22 biological activity is initiated by binding to a cell surface complex composed of IL-22R1 and IL-10R2 receptor chains. Its activity is further regulated through interactions with the soluble binding protein, IL-22BP, which shares sequence similarity with an extracellular region of IL-22R1 (sIL-22R1). Both chains of the IL-22R complex belong to the class II cytokine receptor family. Two types of IL-22 binding receptors have been discovered: a membrane-bound receptor and a soluble receptor that are encoded by different genes. IL-22 is produced by Th17 cells and Th22 cells. The use of Iscove's Modified Dulbecco's Medium (IMDM) will result in better *in vitro* Th17 polarization. It plays a critical role in mucosal immunity in addition to the deregulated inflammation observed in autoimmune diseases.

Antigen References:

1. Nagalakshmi ML, *et al.* 2004. *Int. Immunopharmacol.* 5:679.
2. Kebir H,, *et al.* 2007. *Nat. Med.* 13:1173.
3. Gu Y, *et al.* 2008. *Eur. J. Immunol.* 38:1807.
4. Pene Y, *et al.* 2008. *J. Immunol.* 180:7423.
5. Dumotier L, *et al.* 2000. *J. Immune* 164:1814.
6. Xie MH, *et al.* 2000. *J. Biol. Chem.* 40:31335.
7. Kotenko SV, *et al.* 2001. *J. Immunol.* 166:7096.
8. Chung Y, *et al.* 2006. *Cell Res.* 11:902.
9. Trifari S, *et al.* 2009. *Nat. Immunol.* 10:864.

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