Anti-Phospho-STAT4-148Nd

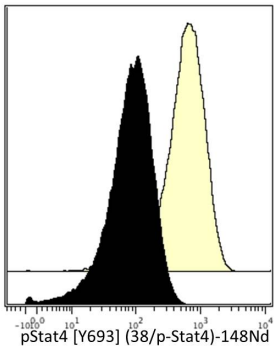
Catalog: 3148006A
Package Size: 50 tests
Storage: Store product at 4°C. Do not freeze.
Reactivity: Human

Clone: 38/p-Stat4
Isotype: IgG2b
Formulation: Antibody stabilizer with 0.05% Sodium Azide

Technical Information

Validation: Each lot of conjugated antibody is quality control tested by CyTOF® analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

Recommended Usage: The suggested use is 1 µl for up to 3 X 10^6 live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human Jurkat T cells were incubated for 15 minutes in media alone (bottom) or with pervanadate (top). Cells were then fixed, permeabilized, and stained with 148Nd-anti-pSTAT4 [pY693] (38/p-Stat4).

Description

Members of the STAT (Signal Transducer and Activators of Transcription) family are important intracellular messengers of cytokines and growth factor signaling. Seven mammalian STATs have been identified: STAT1-4, 5a, 5b, and 6. STAT proteins are activated by tyrosine phosphorylation, which causes dimerization and translocation to the nucleus, where the STAT dimer acts as a transcription factor. JAK-mediated phosphorylation of Tyr693 on STAT4 occurs in response to several cytokines, including interferon-alpha, IL-12, IL-27 and IL-23. Activated STAT4 promotes transcription of genes that mediate cell growth and survival. STAT4 is considered an important mediator in Th1 and Th17 cell differentiation.

References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. **Highly Multiparametric Analysis by Mass Cytometry.** J Immunol Methods 361 (1-2):1-20, 2010.

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