

# Anti-pSTAT4 [Y693]-174Yb

Catalog: 3174005A

Package size: 50 tests

Storage: Store product at 4 °C. Do not freeze.

Cross-reactivity: Mouse, Human

Clone: 38/p-Stat4

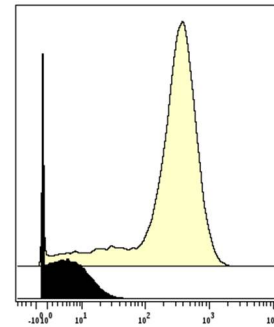
Isotype: Mouse IgG2b

Formulation: Antibody stabilizer with 0.05% sodium azide

## Technical Information

**Validation:** Each lot of conjugated antibody is quality control-tested by CyTOF<sup>®</sup> 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<sup>6</sup> live cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



pStat4 [Y693] (38/p-Stat4)-174Yb

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 174Yb-anti-pStat4 [Y693] (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 (2009): 6,813–22.

Ornatsky, O. I., et al. Highly Multiparametric Analysis by Mass Cytometry. *Journal of Immunological Methods* 361 (2010): 1–20.

**For technical support visit [www.fluidigm.com/support](http://www.fluidigm.com/support).**

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