

# Anti-pStat3 [Y705] (4/P-STAT3)-158Gd

## Pathologist-Verified Clone for Imaging Mass Cytometry™

**Catalog number:** 3158030D

**Package size and concentration:** 25 µg, 0.5 mg/mL

**Clone:** 4/P-STAT3

**Isotype:** Mouse IgG2a

**Pathologist-verified on:** Human FFPE

**Fluidigm tested on:** Human FFPE, Mouse FFPE

**Reported reactivity:** Human, Mouse

**Formulation:** Antibody stabilizer with 0.05% sodium azide

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

**Application:** IMC paraffin

## Technical Information

**Description:** Members of the signal transducer and activator of transcription (STAT) 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 Tyr705 on STAT3 occurs in response to many cytokines and growth factors including interferon-alpha, EGF, IL-5, IL-6, G-CSF, and HGF. Activated STAT3 promotes transcription of genes that mediate cell growth and differentiation.

**Application:** The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry™ (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

**Quality control:** Each lot of conjugated antibody is quality control- tested by Imaging Mass Cytometry on tissue sections

**Recommended concentration:** For optimal performance it is recommended that the antibody be titrated for the desired application. Suggested initial dilution range: IMC-Paraffin: 1:25 to 1:100

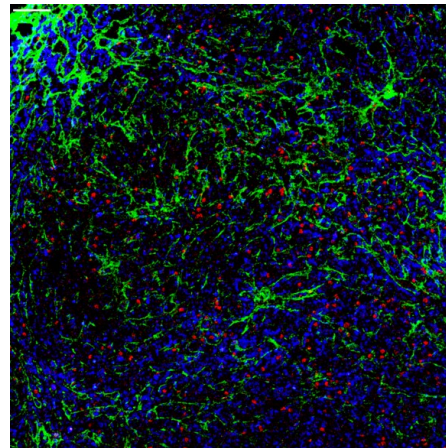
## References

Chang, Q. et al. "Staining of frozen and formalin-fixed, paraffin-embedded tissues with metal-labeled antibodies for Imaging Mass Cytometry analysis." *Current Protocols in Cytometry* 82 (2017): 12.47.1–12.47.8.

Giesen, C. et al. "Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry." *Nature Methods* 11 (2014): 417–22.

## Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to [fluidigm.com/sds](http://fluidigm.com/sds) and search for the SDS using either the product name or the part number.



Human hepatocellular carcinoma (FFPE) stained with 158Gd-anti-phospho-Stat3 [Y705] (4/P-STAT3) at a dilution of 1:50 (red pseudocolor), 169Tm-anti-collagen I (poly) (green pseudocolor), and 171Yb-anti-histone 3 (D1H2) (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = 100 µm.

**For technical support visit [techsupport.fluidigm.com](http://techsupport.fluidigm.com). | For general support visit [fluidigm.com/support](http://fluidigm.com/support).**

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