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DATA SHEET

Mouse Anti-STAT5 [MD311]: MC0608, MC0608RTU7

Intended Use: For Research Use Only

Description: Membrane receptor signaling by various ligands, including interferons and growth hormones such as EGF, induces activation of JAK kinases which then leads to tyrosine phosphorylation of proteins that have been designated Stats (signal transducers and activators of transcription. STAT5A and STAT5B share 96% homology, undergo receptor tyrosine kinase or G protein-coupled receptor-dependent phosphorylation in response to cytokines or growth factors, and then form homo- or heterodimers that translocate to the nucleus, where they initiate transcription. Activation of Stat5a via IL-2, IL-3, IL-7 GM-CSF, erythropoietin, thrombopoietin and growth hormones influences proliferation, differentiation and apoptosis in lymphohematopoietic cells. Phosphorylation of STAT5A at Ser 127/Ser 128 and Ser 779 are contigent on ErbB4-mediated activation of STAT5A. Activation of STAT5B via IL-2, IL-4, CSF1 and growth hormones influences TCR signaling, apoptosis, adult mammary gland development and sexual dimorphism of liver gene expression. STAT5B is the major liver-expressed Stat5 form that has been shown to fuse with the retinoic acid receptor a gene in acute promyelocytic leukemias.

Specifications

Clone:	MD311
Source:	Mouse
Isotype:	IgG1k
Reactivity:	Human, mouse, rat
Immunogen:	Human STAT5A protein aa 661-794
Localization:	Cytoplasm, nucleus
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, ICC/IF, IP, WB

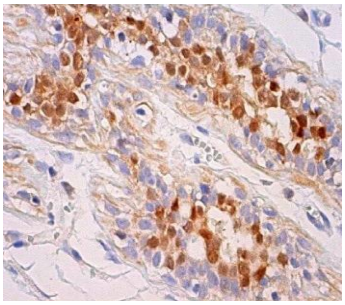
Package:

Description	Catalog No.	Size
STAT5 Concentrated	MC0608	1 ml
STAT5 Prediluted	MC0608RTU7	7 ml

IHC Procedure

Positive Control Tissue:	Breast tissue
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker, or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human breast tissue stained with anti-STAT5 using DAB

References:

1. Inhibitors of class I HDACs and of FLT3 combine synergistically against leukemia cells with mutant FLT3. Vanessa Wachholz, et al. Arch Toxicol. Jan;96(1):177-193, 2022. doi: 10.1007/s00204-021-03174-1.
2. Stat5a/b are essential for normal lymphoid development and differentiation. Zhengju Yao, et al., Proc Natl Acad Sci USA. Jan 24;103(4):1000-5, 2006. doi: 10.1073/pnas.0507350103.

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