

Eff. Date: 2 June 2023

Version: 2.1 IFU: STAT6 ILM3719

# STAT6 clone D1

## **Instructions for Use**

#### Specification:

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). The first members of this family to be described include  $Stat1\alpha$  p91,  $Stat1\beta$  p84 (a form of p91 that lacks 38 COOH-terminal amino acids) and Stat2 p113. Stat1 and Stat2 are induced by IFN- $\alpha$  and form a heterodimer which is part of the ISGF-3 transcription factor complex. Stat3, which becomes activated in response to epidermal growth factor (EGF) and interleukin-6 (IL-6), but not interferon- $\gamma$  (IFN- $\gamma$ ) or Stat4, is an additional member of this family. It has been suggested that the phosphorylated forms of both Stat3 and Stat4 form homodimers as well as heterodimers with the other members of the Stat family, and that differential activation of different Stat1 proteins in response to different ligands should help to explain specificity in nuclear signaling from the cell surface. Highest expression of Stat4 is seen in testis and myeloid cells. IL-12 has been identified as an activator of Stat4. Other members of the Stat1 family include Stat5, which has been shown to be activated by Prolactin and by IL-3, and Stat6 (also designated IL-4 Stat1), which is involved in IL-4-activated signaling pathways.

### Availability:

Catalog No.ContentsVolumeILM3719-C01STAT60,1 ml concentrateILM3719-C05STAT60,5 ml concentrateILM3719-C1STAT61,0 ml concentrate

Intended use: For Research Use Only

Clone: D1

Species of origin: Mouse

Isotype: IgG<sub>2b</sub>

Control Tissue: Urinary bladder

Staining: Nuclear

Presentation: Antibody in PBS Buffer, with less than 0.1% sodium azide and 0.1% gelatin

## Application and suggested dilutions:

Pretreatment: Heat induced epitope retrieval in10 mM citrate buffer, pH6.0, for 20 minutes is required for IHC staining on formalin-fixed, paraffin embedded tissue sections.

 Immunohistochemical staining of formalin-fixed, paraffin embedded tissue section (dilution up to 1:100-1:200)

The optimal dilution for a specific application should be determined by the investigator.

**Note**: Dilution of the antibody in 10% normal goat serum followed by a goat anti-mouse secondary antibody-based detection is recommended.

**Storage & Stability:** Store at 2-8 °C. Do not use after expiration date printed on the vial.

### Reference:

- 1) Zhong, Z., et al. 1994. Science 264: 95-98.
- 2) Darnell, J.E., et al. 1994. Science 264: 1415-1421.
- 3) Hou, J., et al. 1994. Science 265: 1701-1706.
- 4) Yamamoto, K., et al. 1994. Mol. Cell. Biol. 14: 4342-4349.

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