

## STAT 6

Cat.No. HS-378 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>IHC-P/FFPE:</b> 1 : 200 up to 1 : 1000
Clone	37C12
Subtype	IgG2b (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 832 to 847 from human Stat6 (UniProt Id: P42226)
Epitop	Epitop: AA 832 to 847 from human Stat6 (UniProt Id: P42226)
Reactivity	Reacts with: human (P42226). Other species not tested yet.
Specificity	Specific for STAT 6.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**STAT 6** (Signal Transducer and Activator of Transcription 6) is a member of the STAT family of transcription factors. Gene fusion of NGFI-A binding protein 2 (NAB 2) with STAT 6, which converts the transcriptional repressor NAB 2 into a transcriptional activator, was detected as driver mutation in solitary fibrous tumors (SFT). The NAB 2-STAT 6 fusion shows a consistent nuclear reallocation in STAT 6 immunohistochemistry. STAT 6 is a highly sensitive and specific immunohistochemical marker for most SFT and can be helpful to distinguish this tumor type from histologic mimics. Although considered to be a distinct entity from meningeal SFT in the WHO Classification of CNS Tumours (2007), nuclear STAT 6 expression is additionally found in meningeal hemangiopericytoma (HPC). STAT 6 is a reliable marker to distinguish meningeal solitary fibrous tumors-hemangiopericytomas versus meningiomas.

This antibody is part of the HistoSure<sup>®</sup> product line, specifically developed and tested for human pathology.

### Selected General References

Differential Diagnosis of Meningeal SFT-HPC and Meningioma: Which Immunohistochemical Markers Should Be Used? Macagno N, Figarella-Branger D, Mokthari K, Metellus P, Jouve A, Vasiljevic A, Loundou A, Bouvier C. The American journal of surgical pathology (2016) 40(2): 270-8.

NAB2-STAT6 Gene Fusion in Meningeal Hemangiopericytoma and Solitary Fibrous Tumor. Fritchie KJ, Jin L, Rubin BP, Burger PC, Jenkins SM, Barthelmeß S, Moskalev EA, Haller F, Oliveira AM, Giannini C. Journal of neuropathology and experimental neurology (2016) 75(3): 263-71.

The utility of STAT6 and ALDH1 expression in the differential diagnosis of solitary fibrous tumor versus prostate-specific stromal neoplasms.

Guner G, Bishop JA, Bezerra SM, Taheri D, Zahavi DJ, Mendoza Rodriguez MA, Sharma R, Epstein JI, Netto GJ. Human pathology (2016) 54: 184-8.

Nuclear expression of STAT6 distinguishes solitary fibrous tumor from histologic mimics.

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Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc (2014) 27(3): 390-5.

Meningeal hemangiopericytoma and solitary fibrous tumors carry the NAB2-STAT6 fusion and can be diagnosed by nuclear expression of STAT6 protein.

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Identification of recurrent NAB2-STAT6 gene fusions in solitary fibrous tumor by integrative sequencing.

Robinson DR, Wu YM, Kalyana-Sundaram S, Cao X, Lonigro RJ, Sung YS, Chen CL, Zhang L, Wang R, Su F, Iyer MK, et al. Nature genetics (2013) 45(2): 180-5.