

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STAT2 in direct ELISAs. In direct ELISAs, this antibody shows no cross-reactivity with rhSTAT1, 1A, 3, 4, 5A, 5B, 6, or rmSTAT2.
Source	Monoclonal Mouse IgG _{2B} Clone # 545103
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human STAT2 Met1-Phe851 Accession # P52630
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

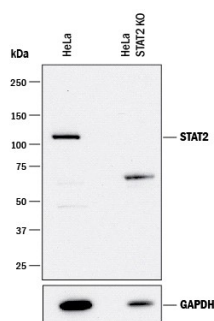
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below
Knockout Validated	STAT2 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in STAT2 knockout HeLa cell line.	

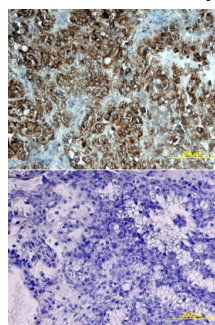
DATA

Western Blot



Western Blot Shows Human STAT2 Specificity by Using Knockout Cell Line. Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and STAT2 knockout HeLa cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human STAT2 Monoclonal Antibody (Catalog # MAB16661) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for STAT2 at approximately 110 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



STAT2 in Human Kidney. STAT2 was detected in immersion fixed paraffin-embedded sections of human kidney array using Mouse Anti-Human STAT2 Monoclonal Antibody (Catalog # MAB16661) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Signal transducer and activator of transcription 2 (STAT2) is a 98 kDa member of the transcription factor STAT family. Human STAT2 is 851 amino acids (aa) in length and contains one SH2 domain (aa 572-667). Splicing variants produce two isoforms for human STAT2. The short isoform has substitutions corresponding to aa 621-652 and aa 653-851 in the long isoform, respectively. Human STAT2 shares 73% and 65% aa sequence identity with rat and mouse STAT2, in that order. STAT2 functions as a signal transducer and activator of transcription that mediates signaling by type I IFNs (IFN-α and IFN-β).