Human STAT1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 655210

Catalog Number: MAB14901

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human STAT1 in Western blots.
Source	Monoclonal Mouse IgG_{2B} Clone # 655210
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E.coli*-derived recombinant human STAT1 Ala687-Val750 Accession # P42224
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.

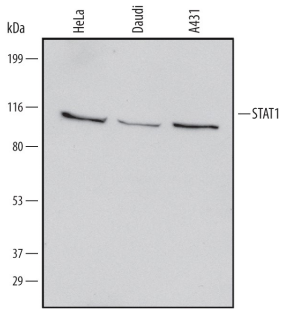
APPLICATIONS

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
Knockout Validated	STAT1 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in STAT1 knockout HeLa cell line.	

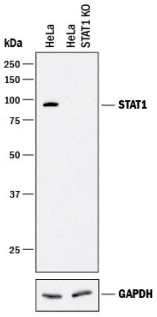
DATA

Western Blot



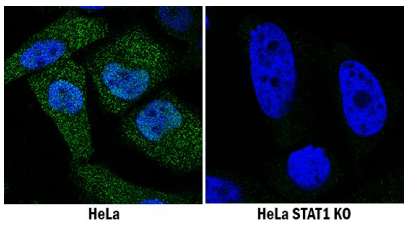
Detection of Human STAT1 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, Daudi human Burkitt's lymphoma cell line, and A431 human epithelial carcinoma cell line. PVDF Membrane was probed with 1 µg/mL of Mouse STAT1 Monoclonal Antibody (Catalog # MAB14091) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for STAT1 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Knockout Validated



Western Blot Shows Human STAT1 Specificity by Using Knockout Cell Line. Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and STAT1 knockout HeLa cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human STAT1 Monoclonal Antibody (Catalog # MAB14901) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for STAT1 at approximately 90 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.

Knockout Validated



STAT1 Specificity is Shown by Immunocytochemistry in Knockout Cell Line. STAT1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line treated with IFN-alpha 1 but is not detected in STAT1 knockout (KO) HeLa cell line using Mouse Anti-Human STAT1 Monoclonal Antibody (Catalog # MAB14901) at 1 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 493-conjugated Anti-Mouse IgG Secondary Antibody (green; Catalog # NL009) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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.** ● 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

STAT1 is a member of the STAT family of cytoplasmic transcription factors that mediate cytokine, growth factor and hormone receptor signal transduction. STAT1 is associated with type I and II interferon signaling. Phosphorylation of STAT1a at Y701 leads to dimerization and translocation to the nucleus to activate gene transcription. Human STAT1 shows 93% and 94% aa identity with mouse and rat STAT1, respectively, over the region used as an immunogen. This region is identical between isoforms STAT1a (91 kDa) and STAT1b (84 kDa).

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