Mouse (monoclonal) Anti-STAT1 Unconjugated

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO0832
Lot Number:	See product label
Quantity/Volume:	100 µg/0.2 mL
Clone Number:	STAT1-79
Isotype:	IgG1κ (mouse)
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline, pH 7.2, with 1% bovine serum albumin.
Preservation:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified from ascites by affinity chromatography.
Immunogen:	Recombinant human STAT1α expressed in *E. coli*.
Specificity:	STATs (signal transducers and activators of transcription) were originally discovered as two proteins (STAT 1 and 2) involved in IFN-α and IFN-γ signal transduction. Since their initial identification, 5 more STAT proteins have been discovered (STAT 3, 4, 5a, 5b and 6). STATs undergo tyrosine phosphorylations in response to growth factor or cytokine signaling (in some cases mediated by JAK kinases [Janus Kinases 1, 2 and 3]), resulting in dimerization and translocation of STAT proteins to the nucleus. Phosphorylation at serine residues in certain STATs (STAT 1α, 3, 4 and 5) has also been reported, and appears to be required for the maximal activation of these proteins. This antibody recognizes proteins of ~91 and ~84 kDa, identified as STAT 1α and β. STAT 1 participates in a signaling pathway which is initiated by IFN-γ.
Species Reactivity:	Human, mouse, and rat. Other species were not tested.
Applications:	This antibody is suitable for use in Western blotting.
Suggested Working Dilutions:	For Western blotting, the recommended concentration is 1 µg/mL. The optimal antibody concentration should be determined for each specific application.
Recommended Positive Control:	Human Jurkat and HeLa cells, mouse L929 cells and rat thymocytes.
Storage:	Store at 2-8ºC. For long term storage, aliquot into small volumes and store at –20ºC. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

This product is for research use only. Not for use in diagnostic procedures.

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Related Products:			
	STAT 1 [pS^{727}]	Catalog Number	44-382G
	STAT 1 [pY^{701}], mouse	Catalog Number	44-376G
	STAT1α, mouse	Catalog Number	44-360G
	STAT 2	Catalog Number	44-362
	STAT 3 [pS^{727}]	Catalog Number	44-384G
	STAT 3 [pY^{705}]	Catalog Number	44-380G
	STAT 3	Catalog Number	44-364G
	STAT 4	Catalog Number	44-366
	STAT 5	Catalog Number	44-368G
	STAT 6	Catalog Number	44-372
	STAT Sampler	Catalog Number	44-638G
	STAT1[pY^{701}] ELISA	Catalog Number	KHO0271
	STAT1 (total) ELISA	Catalog Number	KHO0261

References:

Burysek, L., T. Syrovets, and T. Simmet (2002) The serine protease plasmin triggers expression of MCP-1 and CD40 in human primary monocytes via activation of p38 MAPK and Janus kinase (JAK)/STAT signaling pathways. J. Biol. Chem. 277(36):33509-33517 (cites the use of this antibody).

Schindler, C. and J.E. Darnell Jr. (1995) Transcriptional responses to polypeptide ligands: the JAK-STAT pathway. Annu. Rev. Biochem. 64:621-651.

Ihle, J.N. (1996) STATs: signal transducers and activators of transcription. Cell 84(3):331-334.

Wen, Z. (1995) Maximal activation of transcription by Stat 1 and Stat 3 requires both tyrosine and serine phosphorylation. Cell 82(2):241-250.

84/91 kDa

Western blot analysis

Proteins from cell extracts of human HeLa cells were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this antibody at a concentration of 1 µg/mL. After washing, the membranes were incubated with a goat F(ab')$_2$ anti-mouse IgG alkaline phosphatase conjugated antibody (cat. # AMI4405) at a 1:2000 dilution. Bands were detected with CDP-substrate using the WesternStar™ method (Tropix) and Kodak BioMax film.

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