

## Anti-STAT1 Antibody (3B679)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	3B679
Purification:	Affinity-chromatography

## Applications

Verified Activity:	<p>1. IHC image of TMAH-01136 diluted at 1:50 and staining in paraffin-embedded human testis tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.40% DAB.</p> <p>2. Immunofluorescence staining of Hela with TMAH-01136 at 1:25, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 508-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).</p> <p>3. Overlay Peak curve showing HepG2 cells stained with TMAH-01136 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1µg/1*10<sup>6</sup> cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4°C. Control antibody (green line) was rabbit IgG (1µg/1*10<sup>6</sup> cells) used under the same conditions. Acquisition of &gt;10,000 events was performed.</p>
Application:	ELISA,FCM,IF,IHC
Recommended	IHC:1:50-1:200; IF:1:50-1:200; FCM:1:50-1:200.

## Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

### Antigen Details

Immunogen:	A synthetic peptide: Human STAT1
Antigen Species:	Human
Gene ID:	6772
Uniprot ID:	P42224
Synonyms:	ISGF-3;IMD31B;signal transducer and activator of transcription 1, 91kDa;STAT91;CANDF7;IMD31C;IMD31A
Biology Area:	Epigenetics and Nuclear Signaling, Cancer, Signal transduction

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### Research Background

Signal transducer and transcription activator that mediates cellular responses to interferons (IFNs), cytokine KITLG/SCF and other cytokines and other growth factors. Following type I IFN (IFN-alpha and IFN-beta) binding to cell surface receptors, signaling via protein kinases leads to activation of Jak kinases (TYK2 and JAK1) and to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize and associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of IFN-stimulated genes (ISG), which drive the cell in an antiviral state. In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated. It then forms a homodimer termed IFN-gamma-activated factor (GAF), migrates into the nucleus and binds to the IFN gamma activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state. Becomes activated in response to KITLG/SCF and KIT signaling. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4.

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