Data Sheet (Cat.No.TMAH-00970)

Anti-Phospho-STAT3 (Ser727) Antibody (8W638)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8W638
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in A549 whole cell lysate(treated with EGF or not) -All lanes Phospho-STAT3 antibody at 1.88μg/ml -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 98 KDa -Observed band size: 98 KDa 2. IHC image of TMAH-00970 diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM 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 biotinylated secondary antibody and visualized using an HRP conjugated SP system. 3. Immunoprecipitating Phospho-STAT3 in 293 whole cell lysate treated with Calyculin A -Lane 1: Rabbit control IgG(1μg)instead of TMAH-00970 in 293 whole cell lysate treated with Calyculin A. For western blotting,a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) -Lane 2: TMAH-00970(3μg)+ 293 whole cell lysate treated with Calyculin A(1mg) -Lane 3: 293 whole cell lysate treated with Calyculin A (20μg)
Application:	ELISA,IHC,IP,WB
Recommended	WB:1:500-1:5000; IHC:1:50-1:200; IP:1:200-1:1000.

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 Phospho-STAT3 (S727)
Antigen Species:	Human
Gene ID:	6774
Uniprot ID:	P40763
Synonyms:	STAT3 (p-S727);signal transducer and activator of transcription 3 (acute-phase response factor);ADMIO;Phospho-STAT3 (S727);p-STAT3 (S727);HIES;p-STAT3 (Ser727);STAT3 (p-Ser727);APRF
Biology Area:	Signal Transduction

Research Background

Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF, LEP and other growth factors. Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4. Upon activation of IL6ST/gp130 signaling by interleukin-6 (IL6), binds to the IL6-responsive elements identified in the promoters of various acute-phase protein genes. Activated by IL31 through IL31RA. Acts as a regulator of inflammatory response by regulating differentiation of naive CD4(+) T-cells into T-helper Th17 or regulatory T-cells (Treg): deacetylation and oxidation of lysine residues by LOXL3, leads to disrupt STAT3 dimerization and inhibit its transcription activity. Involved in cell cycle regulation by inducing the expression of key genes for the progression from G1 to S phase, such as CCND1. Mediates the effects of LEP on melanocortin production, body energy homeostasis and lactation. May play an apoptotic role by transctivating BIRC5 expression under LEP activation. Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity. Plays a crucial role in basal beta cell functions, such as regulation of insulin secretion.

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