


Anti-STAT1 (phospho Y701) antibody [M135] ab29045

★★★★★ [5 Abreviews](#) [57 References](#) [2 图像](#)

概述

产品名称	Anti-STAT1 (phospho Y701)抗体[M135]
描述	小鼠单克隆抗体[M135] to STAT1 (phospho Y701)
宿主	Mouse
特异性	The antibody detects 84 and 91 kDa stat1 variants on SDS-PAGE immunoblots of human A431 treated with EGF, as well as Jurkat and A431 cells treated with pervanadate. The antibody does not detect these variants in control cells.
经测试应用	适用于: WB
种属反应性	与反应: Human 预测可用于: Rat 
免疫原	Synthetic peptide corresponding to Human STAT1 (phospho Y701) conjugated to Keyhole Limpet Haemocyanin (KLH).
阳性对照	human SKOV-3 and MDA-MB-468 cells, ab7909 , Jurkat cells
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol, 0.1% BSA
纯度	Protein A purified
纯化说明	Mouse monoclonal antibody purified with protein A chromatography.
克隆	单克隆

克隆编号M135

同种型IgG1

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab29045于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (3)	1/1000. Predicted molecular weight: 87 kDa.

靶标

功能

Signal transducer and activator of transcription that mediates signaling by interferons (IFNs). Following type I IFN (IFN-alpha and IFN-beta) binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, 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 interferon stimulated genes, 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.

疾病相关

Note=STAT1 deficiency results in impaired immune response leading to severe mycobacterial and viral diseases. In the case of complete deficiency, patients can die of viral disease. Defects in STAT1 are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X-linked inheritance.

序列相似性

Belongs to the transcription factor STAT family.

Contains 1 SH2 domain.

翻译后修饰

Phosphorylated on tyrosine and serine residues in response to IFN-alpha, IFN-gamma, PDGF and EGF. Phosphorylation on Tyr-701 (lacking in beta form) by JAK promotes dimerization and subsequent translocation to the nucleus. Phosphorylation on Ser-727 by several kinases including MAPK14, ERK1/2 and CAMKII on IFN-gamma stimulation, regulates STAT1 transcriptional activity. Phosphorylation on Ser-727 promotes sumoylation though increasing interaction with PIAS. Phosphorylation on Ser-727 by PKCdelta induces apoptosis in response to DNA-damaging agents.

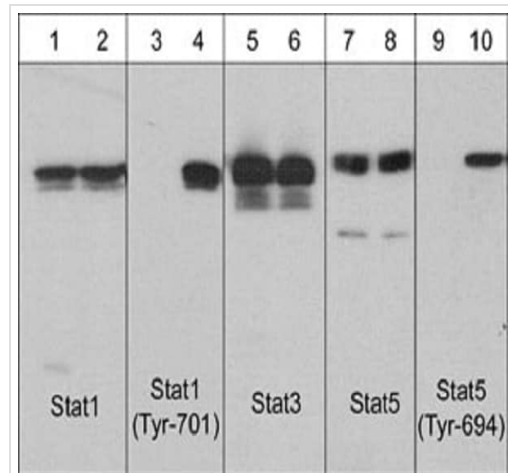
Sumoylated by SUMO1, SUMO2 and SUMO3. Sumoylation is enhanced by IFN-gamma-induced

phosphorylation on Ser-727, and by interaction with PIAS proteins. Enhances the transactivation activity.
 ISGylated.

细胞定位

Cytoplasm. Nucleus. Translocated into the nucleus in response to IFN-gamma-induced tyrosine phosphorylation and dimerization.

图片



Western blot - Anti-STAT1 (phospho Y701) antibody [M135] (ab29045)

Lanes 1-2 & 4 : Anti-STAT1 antibody ([ab2415](#))

Lane 3 : Anti-STAT1 (phospho Y701) antibody [M135] ([ab29045](#))

Lanes 5-6 : Anti-STAT3 antibody ([ab5073](#))

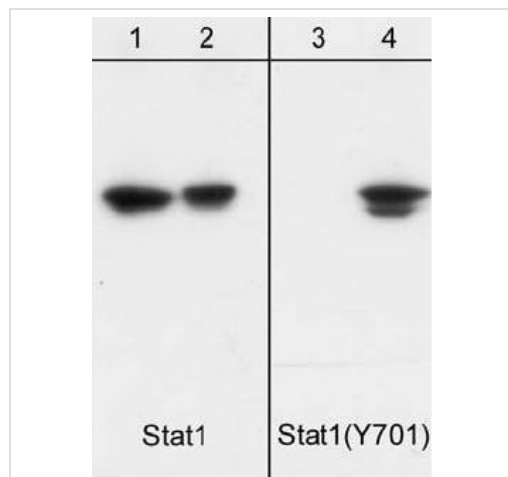
Lanes 7-8 : Anti-STAT5 antibody ([ab68465](#))

Lanes 9-10 : anti-Stat5 (Tyr-694)

All lanes : A-431 whole cell lysate ([ab7909](#))

Predicted band size: 87 kDa

Western blot analysis of human A431 cells untreated (lanes 1, 3, 5, 7, & 9) or treated with EGF (100 nM) for 60 min (lanes 2, 4, 6, 8, & 10).



Western blot - Anti-STAT1 (phospho Y701) antibody [M135] (ab29045)

Lanes 1-2 : Anti-Stat1

Lanes 3-4 : Anti-STAT1 (phospho Y701) antibody [M135] ([ab29045](#)) at 1/1000 dilution

Lanes 1 & 3 : Jurkat cells

Lanes 2 & 4 : Jurkat cells treated with 1mM pervanadate

Predicted band size: 87 kDa

Observed band size: 84,91 kDa

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