

Recombinant Human STAT1 alpha protein - GST tagged

ab140412

1 References 1 图像

描述	
产品名称	重组人STAT1 alpha蛋白- GST tagged
纯度	> 90 % Densitometry. Affinity purified.
表达系统	Baculovirus infected Sf9 cells
Accession	<u>P42224</u>
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	MSQWYELQQLDSEFLEQVHQLYDDSFPMERQYLAQWLEKQD WEHAANDV SFATIRFHDLLSQLDDQYSRFSLENNFLLQHNIRKSKRNLQD NFQEDPIQ MSMIIYSCLKEERKILENAQRFNQAQSGNIQSTVMLDKQKEL DSKVRNVK DKVMCIEHEIKSLEDLQDEYDFKCKTLQNHETNGVAKSDQ KQEQLLLK KMYLMLDNKRKEVVHKIIELLNVTELTQNALINDELVEWKRR QQSACIGG PPNACLDQLQNWFTIVAESLQQVRQQLKKLEELQKYTYEHD PITKNKQV LWDRTFSLFQQLIQSSFVVERQPCMPHPQRPLVLKTGVQFT VKLRLLVK LQELNYNLKVKVLFDKDVNERNTVKGFRKFNILGHTTKVMNM EESTNGSL AAEFRHLQLKEQKNAGTRTNEGPLIVTEELHSLSFETQLCQP GLVIDLET TSLPVVISNVSQLPSGWASILWYNMLVAEPRNLSFFLTPPC ARWAQLSE VLSWQFSSVTKRGLNVDQLNMLGEKLLGPNASPDGLIPWTRF CKENINDK NFPFWLWIESILELIKKHLLPLWNDGCIMGFISKERERALLK DQQPGTFL

LRFSESSREGAITFTWVERSQNGGEPDFHAVEPYTKKELSAV
TFPDIIRN
YKVMAAENIPENPLKYLYPNIDKDHAFGKYYSRPKEAPEPME
LDGPKGTG
YIKTELISVSEVHPSRLQTTDNLLPMSPEEFDEVSRIVGSVE
FDSMMNTV

预测分子量	110 kDa including tags
氨基酸	1 to 750
标签	GST tag N-Terminus

技术指标

Our **Abpromise guarantee** covers the use of **ab140412** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Western blot SDS-PAGE
形式	Liquid

制备和贮存

稳定性和存储	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.31% Glutathione, 0.002% PMSF, 0.004% DTT, 0.79% Tris HCl, 0.003% EDTA, 25% Glycerol (glycerin, glycerine), 0.88% Sodium chloride
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常规信息

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.

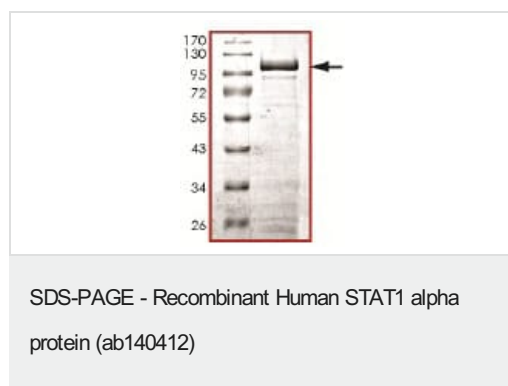
Sumoylated by SUMO1, SUMO2 and SUMO3. Sumoylation is enhanced by IFN-gamma-induced phosphorylation on Ser-727, and by interaction with PIAS proteins. Enhances the transactivation activity.

ISGylated.

细胞定位

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

图片



SDS-PAGE analysis of ab140412.

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