

Recombinant Human STAT1 protein ab43616

製品の詳細

製品名	Recombinant Human STAT1 protein
精製度	> 90 % Densitometry. Affinity Purified > 90 %.
発現系	Sf9 cells
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Human

配列	MSPILGYWKI KGLVQPTRL L LEYLEEKYEE
	HLYERDEGDK WRNKKFELGL EFPNLPPYID
	GDVKLTQSMA IIRYIADKHN MLGGCPKERA
	EISMLEGAVL DIRYGVSRIA YSKDFETLKV
	DFLSKLPEML KMFEDRLCHK TYLNGDHVTH
	PDFMLYDALD VVLYMDPMCL DAFPKLVCFK
	KRIEAIPQID KYLKSSKYIA WPLQGWQATF
	GGGDHPPKSD LVPRGSMQW YELQQLDSKF
	LEQVHQLYDD SFPMEIRQYL AQWLEKQDWE
	HAANDVSFAT IRFHDLLSQL DDQYSRFSLE
	NNFLLQHNIR KSKRNLQDNF QEDPIQMSMI
	IYSCLKEERK ILENAQRFNQ AQSGNIQSTV
	MLDKQKELDS KVRNVKDKVM CIEHEIKSLE
	DLQDEYDFKC KTLQNREHET NGVAKSDQKQ
	EQLLLKKMYL MLDNKRKEVV HKIIELLNVT
	ELTQNALIND ELVEWKRRQQ SACIGGPPNA
	CLDQLQNWFT IVAESLQQVR QQLKKLEELE
	QKYTYEHDPI TKNKQVLWDR TFSLFQQLIQ
	SSFVVERQPC MPTHPQRPLV LKTGVQFTVK
	LRLLVKLQEL NYNLKVKVL FDKDVNERNTV
	KGFRKFNILG THTKVMNMEE STNGSLAAEF
	RHLQLKEQKN AGTRTNEGPL IVTEELHSLS
	FETQLCQPGL VIDLETTSLP VVVISNVSQL
	PSGWASILWY NMLVAEPRNL SFFLTPPCAR
	WAQLSEVLSW QFSSVTKRGL NVDQLNMLGE
	KLLGPNASPD GLIPWTRFCK ENINDKNFPF
	WLWIESILEL IKKHLLPLWN DGCIMGFISK

ERERALLKDQ QPGTFLLRFS ESSREGAITF
TWVERSQNGG EPDFHAVEPY TKKELSAVTF
PDIIRNYKVM AAENIPENPL KYLYPNIDKD
HAFGKYYSRP KEAPEPMELD GPKGTGYIKT ELISVSEV

配列の追加情報

GST-tag: 1-226aa, Thrombin site: 221-226aa, STAT1B protein full-length: 712aa, total protein: 938aa

特性

Our **Abpromise guarantee** covers the use of **ab43616** in the following tested applications.

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

製品の状態

Liquid

前処理および保存

保存方法および安定性

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.87% Sodium chloride, 25% Glycerol (glycerin, glycerine), 0.79% Tris HCl, 0.00385% DTT, 0.00174% PMSF

関連情報

機能

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.

関連疾患

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.

配列類似性

Belongs to the transcription factor STAT family.

Contains 1 SH2 domain.

翻訳後修飾

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.

細胞内局在

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

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