

Datasheet for ABIN7563241
STAT4 Protein (AA 1-749) (His tag)



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Overview

Quantity:	1 mg
Target:	STAT4
Protein Characteristics:	AA 1-749
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This STAT4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Stat4 Protein expressed in mammalian cells.
Sequence:	<p>MSQWNQVQQL EIKFLEQVDQ FYDDNFPMEI RHLLAQWIET QDWEVASNNE TMATILLQNL</p> <p>LIQLDEQLGR VSKEKNLLLI HNLKRIRKVL QGKFHGNPMH VAVVISNCLR EERRILAAAN</p> <p>MPIQGPLEKS LQSSSVSERQ RNVEHKVSAI KNSVQMTEQD TKYLEDLQDE FDYRYKTIQT</p> <p>MDQGDKN SIL VNQEVLTLLQ EMLNSLDFKR KEALSKMTQI VNETDLLMNS MLLEELQDWK</p> <p>KRQQIACIGG PLHNGLDQLQ NCFTLLAESL FQLRQQLLEKL QEQSTKMTYE GDPIPAQRAH</p> <p>LLERATFLIY NLFKNSFVVE RQPCMPHPQ RPMVLKTLIQ FTVKLRLLIK LPELNYQVKV</p> <p>KASIDKNVST LSNRRFVLCG THVKAMSSEE SSNGSLSEVF RHLQPKEMKC STGSKGNEGC</p> <p>HMVTEELHSI TFETQICLYG LTINLETSSL PVVMISNVSQ LPNAWASIIW YNVSTNDSQN</p> <p>LVFFNNPPSV TLGQLLEVMS WQFSSYVGRG LNSEQLNMLA EKLTVQSNYN DGHLTWAKFC</p> <p>KEHLPGKTFT FWTWLEAILD LIKKHILPLW IDGYIMGFVS KEKERLLKDK KMPGTFLLRF</p> <p>SESHLGGITF TWVDQSENGE VRFHSVEPYN KGRLSALAFD DILRDYKVIM AENIPENPLK</p>

Product Details

YLYPDIPKDK AFGKHYSSQP CEVSRPTERG DKGYPVPSVFI PISTIRSDST EPQSPSDLLP
MSPSAYAVLR ENLSPTTIET AMNSPYSAE **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics:	<div>Key Benefits:</div> <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.• Protein expressed in mammalian cells and purified in one-step affinity chromatography• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.</p>
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Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
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Grade:	custom-made
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Target Details

Target:	STAT4
Alternative Name:	Stat4 (STAT4 Products)
Background:	Signal transducer and activator of transcription 4,FUNCTION: Transcriptional regulator mainly expressed in hematopoietic cells that plays a critical role in cellular growth, differentiation and immune response. Plays a key role in the differentiation of T-helper 1 cells and the production of interferon-gamma (PubMed:8700209). Participates also in multiple neutrophil functions including chemotaxis and production of the neutrophil extracellular traps (PubMed:34138758). After IL12 binding to its receptor IL12RB2, STAT4 interacts with the intracellular domain of IL12RB2 and becomes tyrosine phosphorylated. Phosphorylated STAT4 then homodimerizes and migrates to the nucleus where it can recognize STAT target sequences present in IL12

Target Details

responsive genes. Although IL12 appears to be the predominant activating signal, STAT4 can also be phosphorylated and activated in response to IFN-gamma stimulation via JAK1 and TYK2 and in response to different interleukins including IL23, IL2 and IL35 (By similarity). Transcription activation of IFN-gamma gene is mediated by interaction with JUN that forms a complex that efficiently interacts with the AP-1-related sequence of the IFN-gamma promoter (PubMed:14734615). In response to IFN-alpha/beta signaling, acts as a transcriptional repressor and suppresses IL5 and IL13 mRNA expression during response to T-cell receptor (TCR) activation (By similarity). {ECO:0000250|UniProtKB:Q14765, ECO:0000269|PubMed:14734615, ECO:0000269|PubMed:34138758, ECO:0000269|PubMed:8700209}.

Molecular Weight:	85.9 kDa
UniProt:	P42228
Pathways:	JAK-STAT Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months