Datasheet for ABIN7554389

SYK Protein (AA 1-635) (His tag)

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Overview

Quantity:	1 mg
Target:	SYK
Protein Characteristics:	AA 1-635
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SYK protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat SYK Protein expressed in mammalien cells.
Sequence:	MASSGMADSA NHLPFFFGNI TREEAEDYLV QGGMSDGLYL LRQSRNYLGG FALSVAHGRK AHHYTIEREL NGTYAIAGGR THASPADLCH YHSQESDGLV CLLKKPFNRP QGVQPKTGPF EDLKENLIRE YVKQTWNLQG QALEQAIISQ KPQLEKLIAT TAHEKMPWFH GKISREESEQ IVLIGSKTNG KFLIRARDNN GSYALCLLHE GKVLHYRIDK DKTGKLSIPE GKKFDTLWQL VEHYSYKADG LLRVLTVPCQ KIGTQGNVNF GGRPQLPGSH PATWSAGGII SRIKSYSFPK PGHRKSSPAQ GNRQESTVSF NPYEPELAPW AADKGPQREA LPMDTEVYES PYADPEEIRP KEVYLDRKLL TLEDKELGSG NFGTVKKGYY QMKKVVKTVA VKILKNEAND PALKDELLAE ANVMQQLDNP YIVRMIGICE AESWMLVMEM AELGPLNKYL QQNRHVKDKN IIELVHQVSM GMKYLEESNF VHRDLAARNV LLVTQHYAKI SDFGLSKALR ADENYYKAQT HGKWPVKWYA PECINYYKFS SKSDVWSFGV LMWEAFSYGQ KPYRGMKGSE VTAMLEKGER MGCPAGCPRE MYDLMNLCWT YDVENRPGFA AVELRLRNYY YDVVN **Sequence without tag. The proposed**

Product Details

	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:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien 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). 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	SYK
Alternative Name:	SYK (SYK Products)
Background:	Tyrosine-protein kinase SYK (EC 2.7.10.2) (Spleen tyrosine kinase) (p72-Syk),FUNCTION: Non-receptor tyrosine kinase which mediates signal transduction downstream of a variety of transmembrane receptors including classical immunoreceptors like the B-cell receptor (BCR). Regulates several biological processes including innate and adaptive immunity, cell adhesion, osteoclast maturation, platelet activation and vascular development (PubMed:12387735, PubMed:33782605). Assembles into signaling complexes with activated receptors at the plasma membrane via interaction between its SH2 domains and the receptor tyrosine-phosphorylated ITAM domains. The association with the receptor can also be indirect and mediated by adapter proteins containing ITAM or partial hemITAM domains. The phosphorylation of the ITAM domains is generally mediated by SRC subfamily kinases upon

engagement of the receptor. More rarely signal transduction via SYK could be ITAM-independent. Direct downstream effectors phosphorylated by SYK include DEPTOR, VAV1, PLCG1, PI-3-kinase, LCP2 and BLNK (PubMed:12456653, PubMed:15388330, PubMed:8657103, PubMed:34634301). Initially identified as essential in B-cell receptor (BCR) signaling, it is necessary for the maturation of B-cells most probably at the pro-B to pre-B transition (PubMed:12456653). Activated upon BCR engagement, it phosphorylates and activates BLNK an adapter linking the activated BCR to downstream signaling adapters and effectors. It also phosphorylates and activates PLCG1 and the PKC signaling pathway. It also phosphorylates BTK and regulates its activity in B-cell antigen receptor (BCR)-coupled signaling. In addition to its function downstream of BCR also plays a role in T-cell receptor signaling. Plays also a crucial role in the innate immune response to fungal, bacterial and viral pathogens. It is for instance activated by the membrane lectin CLEC7A. Upon stimulation by fungal proteins, CLEC7A together with SYK activates immune cells inducing the production of ROS. Also activates the inflammasome and NF-kappa-B-mediated transcription of chemokines and cytokines in presence of pathogens. Regulates neutrophil degranulation and phagocytosis through activation of the MAPK signaling cascade (By similarity). Required for the stimulation of neutrophil phagocytosis by IL15 (PubMed:15123770). Also mediates the activation of dendritic cells by cell necrosis stimuli. Also involved in mast cells activation. Involved in interleukin-3/IL3-mediated signaling pathway in basophils (By similarity). Also functions downstream of receptors mediating cell adhesion (PubMed:12387735). Relays for instance, integrin-mediated neutrophils and macrophages activation and P-selectin receptor/SELPG-mediated recruitment of leukocytes to inflammatory loci. Also plays a role in non-immune processes. It is for instance involved in vascular development where it may regulate blood and lymphatic vascular separation. It is also required for osteoclast development and function. Functions in the activation of platelets by collagen, mediating PLCG2 phosphorylation and activation. May be coupled to the collagen receptor by the ITAM domain-containing FCER1G. Also activated by the membrane lectin CLEC1B that is required for activation of platelets by PDPN/podoplanin. Involved in platelet adhesion being activated by ITGB3 engaged by fibrinogen. Together with CEACAM20, enhances production of the cytokine CXCL8/IL-8 via the NFKB pathway and may thus have a role in the intestinal immune response (By similarity). {ECO:0000250|UniProtKB:P48025, ECO:0000269|PubMed:12387735, ECO:0000269|PubMed:12456653, ECO:0000269|PubMed:15123770, ECO:0000269|PubMed:15388330, ECO:0000269|PubMed:19909739, ECO:0000269|PubMed:33782605, ECO:0000269|PubMed:34634301, ECO:0000269|PubMed:8657103, ECO:0000269|PubMed:9535867}.

Target Details

Molecular Weight:	72.1 kDa
UniProt:	P43405
Pathways:	Fc-epsilon Receptor Signaling Pathway, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Thromboxane A2 Receptor Signaling, BCR 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

