

Product datasheet

Anti-Syk (phospho Y323) antibody ab79193

★★★★☆ 1 Abreviews 2 图像

概述

产品名称	Anti-Syk (phospho Y323)抗体
描述	兔多克隆抗体to Syk (phospho Y323)
宿主	Rabbit
特异性	Detects endogenous levels of SYK only when phosphorylated at tyrosine 323.
经测试应用	适用于: WB, ELISA, IHC-P, ICC/IF
种属反应性	与反应: Human 预测可用于: Mouse, Rat 
免疫原	Synthesized phosphopeptide derived from human SYK around the phosphorylation site of tyrosine 323 (NPY ^P EP).
阳性对照	HT 29 cytoplasmic lysate; human brain tissue

性能

形式	Liquid
存放说明	Frozen Stock (-20C). Shelf life 12 months.
存储溶液	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
纯度	Immunogen affinity purified
纯化说明	Purified from rabbit antiserum by chromatography using epitope specific phosphopeptide. The antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.
克隆	多克隆
同种型	IgG

应用

Our [Abpromise guarantee](#) covers the use of **ab79193** in the following tested applications.

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

应用	Ab评论	说明
WB	★★★★☆	1/500 - 1/1000. Detects a band of approximately 72 kDa.
ELISA		1/5000.
IHC-P		1/50 - 1/100.
ICC/IF		1/100 - 1/500.

靶标

功能

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. 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 VAV1, PLCG1, PI-3-kinase, LCP2 and BLNK. 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. 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 plays also 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. Also mediates the activation of dendritic cells by cell necrosis stimuli. Also involved in mast cells activation. Also functions downstream of receptors mediating cell adhesion. Relays for instance, integrin-mediated neutrophils and macrophages activation and P-selectin receptor/SELPG-mediated recruitment of leukocytes to inflammatory loci. Plays also 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.

组织特异性

Widely expressed in hematopoietic cells (at protein level). Within the B-cells compartment it is for instance expressed for pro-B-cells to plasma cells.

序列相似性

Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily. Contains 1 protein kinase domain.

Contains 2 SH2 domains.

结构域

The SH2 domains mediate the interaction of SYK with the phosphorylated ITAM domains of transmembrane proteins. Some proteins like CLEC1B have a partial ITAM domain (also called hemITAM) containing a single YxxL motif. The interaction with SYK requires CLEC1B homodimerization.

翻译后修饰

Ubiquitinated by CBLB after BCR activation; which promotes proteasomal degradation. Autophosphorylated. Phosphorylated on tyrosine residues by LYN following receptors engagement. Phosphorylation on Tyr-323 creates a binding site for CBL, an adapter protein that serves as a negative regulator of BCR-stimulated calcium ion signaling. Phosphorylation at Tyr-348 creates a binding site for VAV1. Phosphorylation on Tyr-348 and Tyr-352 enhances the phosphorylation and activation of phospholipase C-gamma and the early phase of calcium ion mobilization via a phosphoinositide 3-kinase-independent pathway (By similarity). Phosphorylation on Ser-297 is very common, it peaks 5 minutes after BCR stimulation, and creates a binding site for YWHAG. Phosphorylation at Tyr-630 creates a binding site for BLNK. Dephosphorylated by PTPN6.

细胞定位

Cell membrane. Cytoplasm, cytosol.

图片



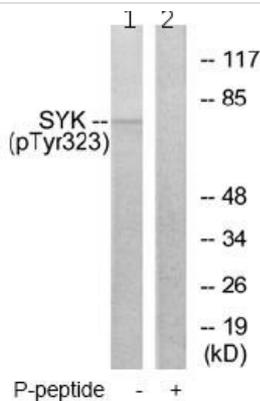
P-peptide

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syk (phospho Y323) antibody (ab79193)

ab79193, at a 1/50 dilution, staining human Syk (phospho Y323) in brain, using Immunohistochemistry, Formalin/PFA fixed Paraffin embedded tissue, minus immunising peptide (left image) and plus immunising peptide (right image).



Western blot - Anti-Syk (phospho Y323) antibody (ab79193)

All lanes : Anti-Syk (phospho Y323) antibody (ab79193) at 1/500 dilution

Lane 1 : Extracts from HT 29 cells

Lane 2 : Extracts from HT 29 cells with immunizing peptide at 10 µg

Lysates/proteins at 30 µg per lane.

Observed band size: 72 kDa

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