# abcam

## Product datasheet

# Anti-Syk (phospho Y525) antibody [EP575(2)Y] ab62350

ועלשעבע RabMAb

2 References 画像数3

#### 製品の概要

製品名 Anti-Syk (phospho Y525) antibody [EP575(2)Y]

製品の詳細 Rabbit monoclonal [EP575(2)Y] to Syk (phospho Y525)

由来種 Rabbit

アプリケーション 適用あり: WB, Dot blot

適用なし: Flow Cvt,IHC-P or IP

種交差性 交差種: Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール U937 cell lysates treated with pervanadate.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

バッファー

Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue

culture supernatant

精製度 Tissue culture supernatant

モノクローナル ポリモノ

クローン名

EP575(2)Y

アイソタイプ

lgG

#### アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab62350の使用に適用されますアプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/5000 - 1/10000. Predicted molecular weight: 72 kDa.
Dot blot		1/1000.

追加情報

Is unsuitable for Flow Cyt,IHC-P or IP.

#### ターゲット情報

#### 機能

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 NFkappa-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 nonimmune 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.

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.

**配列類似性** Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily.

Contains 1 protein kinase domain.

Contains 2 SH2 domains.

ドメイン 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.

翻訳後修飾 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).

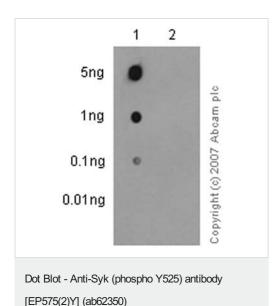
Phosphorylation on Ser-297 is very common, it peaks 5 minutes after BCR stimulation, and creates a binding site for YWHAG. Phosphorylation at Tyr-630 creates a binding site for BLNK.

Dephosphorylated by PTPN6.

**細胞内局在** Cell membrane. Cytoplasm, cytosol.

#### 画像

組織特異性



Primary antibody dilution: 1/1000

Secondary antibody: goat anti-rabbit IgG, (H+L), peroxidase conjugated

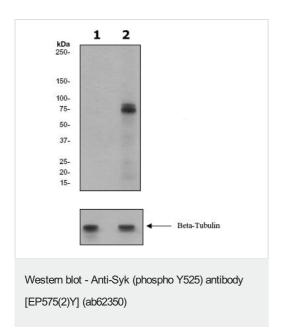
Secondary antibody dilution: 1/2500

Blocking & dilution buffer: 5% NFDM/TBST

Lane 1 sample: Syk(pY525) phospho peptide

Lane 2 sample: Syk non-phospho peptide

Exposure time: 3 minutes



**All lanes :** Anti-Syk (phospho Y525) antibody [EP575(2)Y] (ab62350) at 1/10000 dilution

Lane 1: untreated U937 cell lysates

**Lane 2:** U937 cell lysates treated with pervanadate.

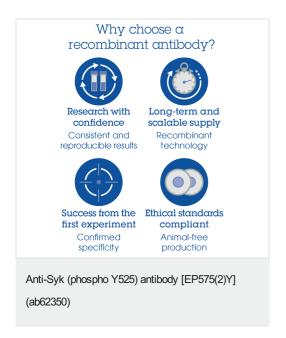
Lysates/proteins at 10 µg per lane.

#### Secondary

All lanes: goat anti rabbit HRP at 1/2000 dilution

**Predicted band size:** 72 kDa **Observed band size:** 75,80 kDa

Beta tubulin shows equal lysate loading amount.



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