abcam

Product datasheet

Anti-Src (phospho Y529) antibody [Y232] - BSA and Azide free ab239801

Recombinant RabMAb

4 Images

Overview

Product name	Anti-Src (phospho Y529) antibody [Y232] - BSA and Azide free
Description	Rabbit monoclonal [Y232] to Src (phospho Y529) - BSA and Azide free
Host species	Rabbit
Specificity	This antibody will detect Src phosphorylation on Tyrosine 529 of both isoforms. The antibody immunogen shares 93% homology with Fyn and Yes and 85% homology with Fgr. Therefore, it is likely that the antibody will cross-react with these proteins. However, this is just based on BLAST results and no experiments were performed. The sequence numbering is based off the mature form of the protein without the initiator methionine.
Tested applications	**Suitable for:** Dot blot, ICC/IF, WB **Unsuitable for:** Flow Cyt or IHC
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as **ab179556**)
General notes	ab239801 is the carrier-free version of **ab32078**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y232
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab239801 in the following tested applications.

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

Application	Abreviews	Notes
Dot blot		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 60 kDa.

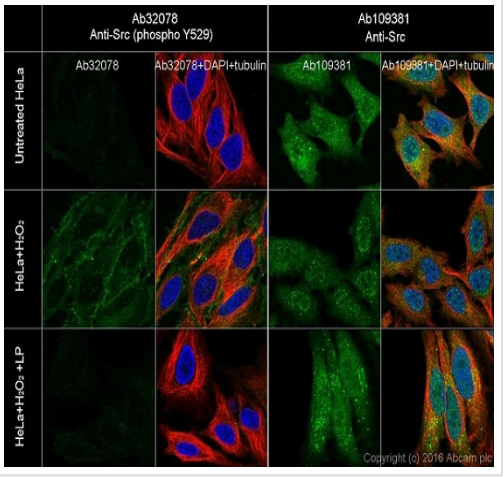
Application notes Is unsuitable for Flow Cyt or IHC.

Target

Function Non-receptor protein tyrosine kinase that plays pivotal roles in numerous cellular processes such as proliferation, migration, and transformation. In concert with PTK2B, plays an important role in osteoclastic bone resorption. Both the formation of a SRC-PTK2B complex, and SRC kinase activity are necessary for this function. Once it is recruited to the activated integrins, by PTK2B, it phosphorylates CBL which in turn induces the activation and recruitment of phosphatidylinositol 3-kinase to the cell membrane in a signaling pathway that is critical for osteoclast function. Promotes energy production in osteoclasts by activating mitochondrial cytochrome C oxidase. Phosphorylates RUNX3 and COX2 on tyrosine residues, TNK2 on 'Tyr-284' and CBL on 'Tyr-731'. Enhances DDX58/RIG-I-elicited antiviral signaling.

Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily. Contains 1 protein kinase domain. Contains 1 SH2 domain. Contains 1 SH3 domain.
Post-translational modifications	Dephosphorylated at Tyr-530 by PTPRJ (By similarity). Phosphorylated on Tyr-530 by c-Src kinase (CSK). The phosphorylated form is termed pp60c-src. Dephosphorylated by PTPRJ at Tyr-419. Normally maintained in an inactive conformation with the SH2 domain engaged with Tyr-530, the SH3 domain engaged with the SH2-kinase linker, and Tyr-419 dephosphorylated. Dephosphorylation of Tyr-530 as a result of protein tyrosine phosphatase (PTP) action disrupts the intramolecular interaction between the SH2 domain and Tyr-530, Tyr-419 can then become autophosphorylated, resulting in SRC activation. Phosphorylation of Tyr-530 by CSK allows this interaction to reform, resulting in SRC inactivation. S-nitrosylation is important for activation of its kinase activity.
Cellular localization	Cell membrane. Mitochondrion inner membrane.
Form	This protein is known to be similar in amino acid sequence to HCK (P08631), LCK (P06239), FYN (P06241), YES1 (P07947), and LYN (P07948). Therefore, cross-reactivity with these homologous proteins may be observed. We would be happy to provide immunogen alignment information upon request.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Src (phospho Y529) antibody [Y232] - BSA and Azide free (ab239801)

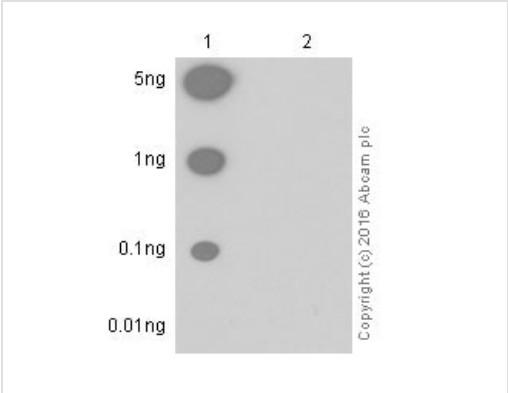
Immunocytochemistry/Immunofluorescence analysis of HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labelling Src (phospho Y529) with **ab32078** at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Cells were counter-stained with **ab195889** Anti-Alpha Tubulin antibody [DM1A] (1/200) - Microtubule Marker (Alexa Fluor® 594). DAPI (blue) was used as a nuclear counterstain.

The green staining was increased in the H2O2 (10mM, 1 hour) treated HeLa cells when compared with HeLa cells without treatment. After LP treatment, the green signaling was obviously decreased.

For the pan antibody, there was no great difference after H_2O_2 (10 mM, 1 hour) or EGF (100 ng/mL, 10 minutes) + LP treatment.

The data showed mostly Cytoplasm and Membran staining for Ab32078.

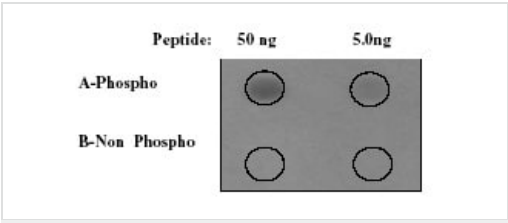
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32078**).



Dot Blot - Anti-Src (phospho Y529) antibody [Y232] - BSA and Azide free (ab239801)

Dot Blot analysis of Lane 1: Src (pY529) phospho peptide and Lane 2: Src non-phospho peptide labeling Src (phospho Y529) with **ab32078** at 1/1000 dilution. 5% NFDM/TBST was used as the diluting and blocking buffer. **ab97051** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated was used as the secondary antibody at 1/100000 dilution. Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32078**).



Dot Blot - Anti-Src (phospho Y529) antibody [Y232] - BSA and Azide free (ab239801)

Dot Blot analysis on immunogen phospho peptide (A) and non phospho peptide (B) using 1/2000 **ab32078**.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32078**).

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