

## Product datasheet

### Anti-Src antibody ab47405

★★★★★ [6 Abreviews](#) [33 References](#) [8 Images](#)

#### Overview

<b>Product name</b>	Anti-Src antibody
<b>Description</b>	Rabbit polyclonal to Src
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody detects endogenous levels of total Src protein. It will react with Src (pY529), Yes (pY538), and Fyn (Y531).
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB, IHC-P, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, Pig
<b>Immunogen</b>	Synthetic peptide corresponding to Human Src aa 487-536. Database link: <a href="#">P12931</a>
<b>Positive control</b>	WB: HEK-293, HeLa cells; mouse primary astrocytes. IHC-P: Human breast carcinoma tissue. ICC/IF: HEK-293 cells; pig retinal pigment epithelium cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride</p> <p>PBS without Mg+2 and Ca+2</p>
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-

	specific immunogen.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab47405 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

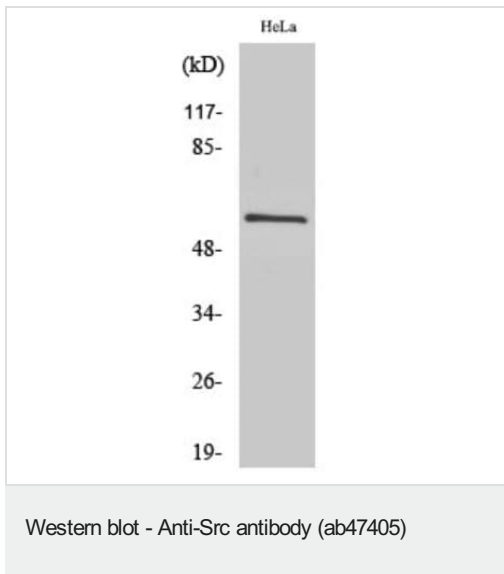
Application	Abreviews	Notes
ICC/IF	★★★★★ (3)	Use a concentration of 1 - 5 µg/ml.
WB	★★★★★ (3)	1/500 - 1/1000. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa).
IHC-P		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration. Peptide ELISA only.

## Target

<b>Function</b>	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.
<b>Sequence similarities</b>	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.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Cell membrane. Mitochondrion inner membrane.
<b>Form</b>	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

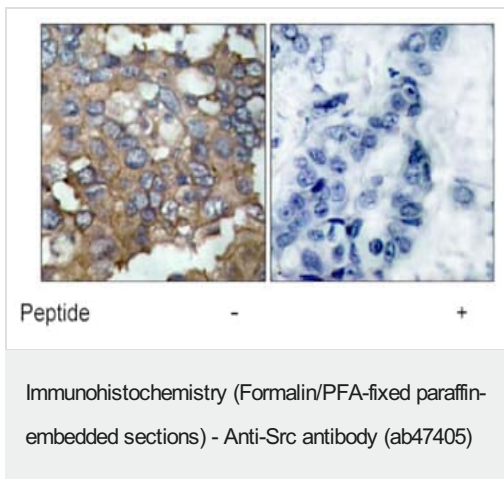
homologous proteins may be observed. We would be happy to provide immunogen alignment information upon request.

## Images

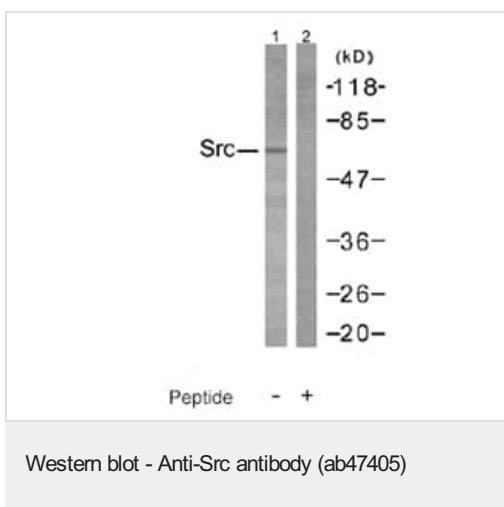


Anti-Src antibody (ab47405) at 1/2000 dilution + HeLa cells

**Predicted band size:** 60 kDa



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Src antibody, in the presence and absence of blocking peptide.



**All lanes :** Anti-Src antibody (ab47405) at 1/500 dilution

**Lane 1 :** HEK-293 cell extracts

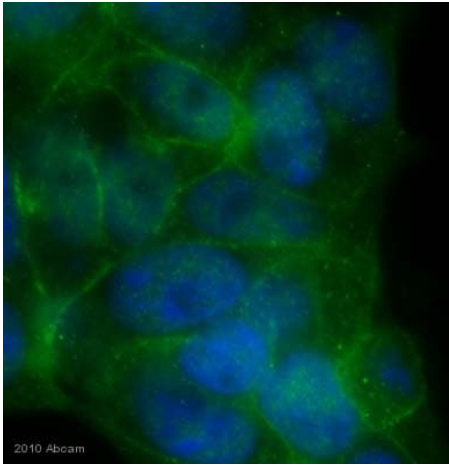
**Lane 2 :** HEK-293 cell extracts with Blocking peptide

**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa

Western blot analysis of extracts from 293 cells using Src antibody in the presence and absence of blocking peptide. Western blot analysis of extracts from HEK-293 cells using Src antibody at 1/500

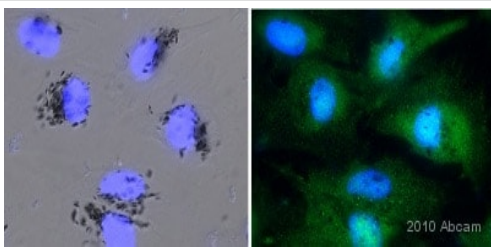
in the presence and absence of blocking peptide.



Immunocytochemistry/ Immunofluorescence - Anti-Src antibody (ab47405)

This image was kindly supplied by Dr Vladimir Milenkovic by Abreview

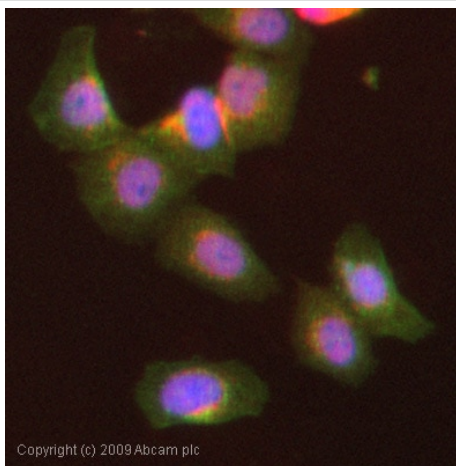
ab47405 staining Src in human HEK-293 cells by Immunocytochemistry/ Immunofluorescence. The cells were paraformaldehyde fixed, permeabilised in 0.5% Triton X-100 and then blocked using 5% serum for 20 minutes at 25°C. Samples were then incubated with primary antibody at 1/1000 for 16 hours at 4°C. The secondary antibody used was a goat anti-rabbit IgG conjugated to Alexa Fluor® 488 (green) used at a 1/5000 dilution. DAPI was used to stain the cell nuclei (blue).



Immunocytochemistry/ Immunofluorescence - Anti-Src antibody (ab47405)

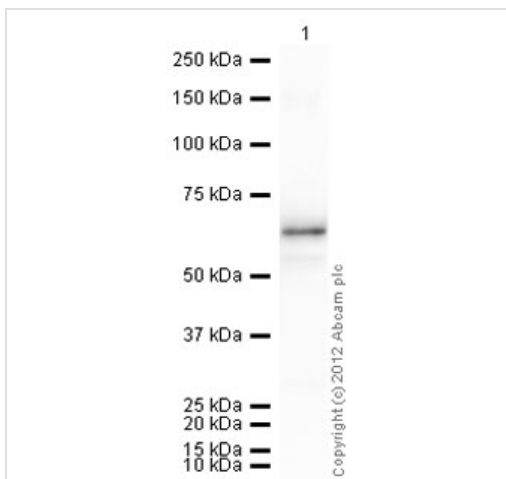
This image is courtesy of an Abreview submitted by Dr. Vladimir Milenkovic

ab47405 staining Src in Pig retinal pigment epithelium primary cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.5% Triton X-100 and blocked with 5% serum for 20 minutes at 25°C. Samples were incubated with primary antibody (1/1000 in 0.1% TX100, 1% goat serum, 1XPBS) for 16 hours at 4°C. An Alexa Fluor®488-conjugated goat anti-rabbit IgG polyclonal (1/5000) was used as the secondary antibody. Nuclei were counterstained with DAPI.



Immunocytochemistry/ Immunofluorescence - Anti-Src antibody (ab47405)

ICC/IF image of ab47405 stained MCF7 cells (**ab3871**). The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab47405, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (**ab150077**) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Western blot - Anti-Src antibody (ab47405)

Anti-Src antibody (ab47405) at 1/500 dilution + Recombinant human Src protein ([ab79635](#)) at 0.001 µg

#### Secondary

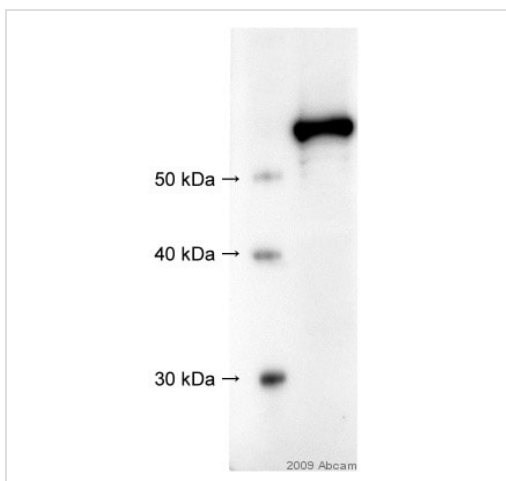
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 60 kDa

**Exposure time:** 10 seconds



Western blot - Anti-Src antibody (ab47405)

This image is courtesy of an anonymous abreview.

Anti-Src antibody (ab47405) at 1/1000 dilution + whole cell lysate prepared from mouse primary astrocytes at 15 µg

#### Secondary

Goat anti-rabbit IgG conjugated to HRP at 1/5000 dilution

Performed under reducing conditions.

**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa

**Exposure time:** 5 seconds

Primary antibody incubated for 1 hour at 25°C.

Blocked with 3% BSA for 1 hour at 25°C.

Gel run under denaturing conditions.

Detection method: ImmunoStar.

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