

Product datasheet

Human Src peptide ab42782

1 Image

Overview

Product name Human Src peptide

Description

Nature Synthetic

Amino Acid Sequence

Species Human

Modifications phospho Y215

Specifications

Our [Abpromise guarantee](#) covers the use of **ab42782** in the following tested applications.

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

Biological activity The ab42782 peptide blocks antibodies that recognise amino acid residues around phosphorylated tyrosine 215 of human Src. The peptide sequence has homology to other Src kinase family members, such as hck, fyn, csk, and yes.

Applications Blocking - Blocking peptide for Anti-Src (phospho Y215) antibody ([ab24789](#))
ELISA

Form Liquid

Additional notes

Tyrosine 215 in the SH-2 domain of Src is phosphorylated following growth factor receptor activation. Both Tyr-215 and Tyr-418 phosphorylation increases tyrosine kinase activity.

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Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Preservative: 0.05% Sodium Azide
Constituents: PBS

General Info

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.

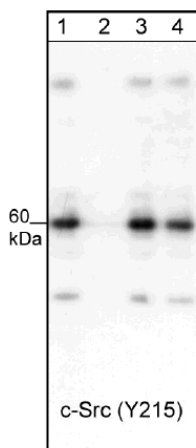
Post-translational modifications

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.

Images



Western blot - Src peptide (ab42782)

All lanes : Anti-Src (phospho Y215) antibody (ab24789)

Lane 1 : A431 cells treated with pervanadate (1 mM) for 30 minutes (20 µg/lane) with no blocking peptide

Lane 2 : A431 cells treated with pervanadate (1 mM) for 30 minutes (20 µg/lane) with phospho-c-Src (Tyr-215) peptide (ab42782) at 1 µg/ml.

Lane 3 : A431 cells treated with pervanadate (1 mM) for 30 minutes (20 µg/lane) with unrelated phospho-β-Catenin (Tyr-142) peptide at 1 µg/ml.

Lane 4 : A431 cells treated with pervanadate (1 mM) for 30 minutes (20 µg/lane) with BSA conjugated to phospho-tyrosine at 1 µg/ml.

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