

## Recombinant Human SHC protein ab109851

画像数 1

### 製品の詳細

製品名 Recombinant Human SHC protein  
精製度 > 90 % SDS-PAGE.

発現系 Escherichia coli  
アクセッション番号 **P29353**

タンパク質長 Protein fragment

Animal free No

由来 Recombinant

生物種 Human

配列

MGSSHHHHHHSSGLVPRGSHFNTRTQVTREISLVCEAVP  
GAKGATRRRK  
PCSRPLSSILGRSNLKFAGMPITLTVSTSSLNLMAADCKQII  
ANHHMQSI  
SFASGGDPDTMNKLSGGGGRTRVEGGQLGGEWTRHGSFVN  
KPTRGWLH  
PNDKVMGPGVSYLVRYMGCVEVLQSMRALDAEYVAYVAKDPV  
NQRACHIL  
ECPEGLAQDVISTIGQAFELRFKQYLRNPPKLVTPHDRAMAGF  
DGSADDEE  
EEEPDHHQYYNDFPGKEPPLGGVDMRLREGAAPGAARPTAP  
NAQTPSHL  
GATLPVGGQPVGGDPEVRKQMPPPPPCPAGRELDDPSYVNVQ  
NLDKARQA  
VGGAGPPNPAINGSAAPRDLFDMKPFEDALRVPPPPQSVSMAE  
QLRGEPWF  
HGKLSRREAEALLQLNGDFLVRESTTTPGQYVLTGLQSGQPK  
HLLLVDPE  
GVVRTKDHRFESVSHLISYHMDNHLPIISAGSELCLQQPVER  
KL

予測される分子量 54 kDa including tags

領域 1 to 474

タグ His tag N-Terminus

## 特性

Our **Abpromise guarantee** covers the use of **ab109851** in the following tested applications.

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

### アプリケーション

SDS-PAGE

### 製品の状態

Liquid

## 前処理および保存

### 保存方法および安定性

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.00174% PMSF, 0.0308% DTT, 0.316% Tris HCl, 20% Glycerol (glycerin, glycerine), 0.116% Sodium chloride

## 関連情報

### 機能

Signaling adapter that couples activated growth factor receptors to signaling pathways. Participates in a signaling cascade initiated by activated KIT and KITLG/SCF. Isoform p46Shc and isoform p52Shc, once phosphorylated, couple activated receptor tyrosine kinases to Ras via the recruitment of the GRB2/SOS complex and are implicated in the cytoplasmic propagation of mitogenic signals. Isoform p46Shc and isoform p52Shc may thus function as initiators of the Ras signaling cascade in various non-neuronal systems. Isoform p66Shc does not mediate Ras activation, but is involved in signal transduction pathways that regulate the cellular response to oxidative stress and life span. Isoform p66Shc acts as a downstream target of the tumor suppressor p53 and is indispensable for the ability of stress-activated p53 to induce elevation of intracellular oxidants, cytochrome c release and apoptosis. The expression of isoform p66Shc has been correlated with life span (By similarity). Participates in signaling downstream of the angiotensin receptor TEK/TIE2, and plays a role in the regulation of endothelial cell migration and sprouting angiogenesis.

### 組織特異性

Widely expressed. Expressed in neural stem cells but absent in mature neurons.

### 配列類似性

Contains 1 PID domain.

Contains 1 SH2 domain.

### ドメイン

In response to a variety of growth factors, isoform p46Shc and isoform p52Shc bind to phosphorylated Trk receptors through their phosphotyrosine binding (PID) and/or SH2 domains. The PID and SH2 domains bind to specific phosphorylated tyrosine residues in the Asn-Pro-Xaa-Tyr(P) motif of the Trk receptors. Isoform p46Shc and isoform p52Shc are in turn phosphorylated on three tyrosine residues within the extended proline-rich domain. These phosphotyrosines act as docking site for GRB2 and thereby are involved in Ras activation.

### 翻訳後修飾

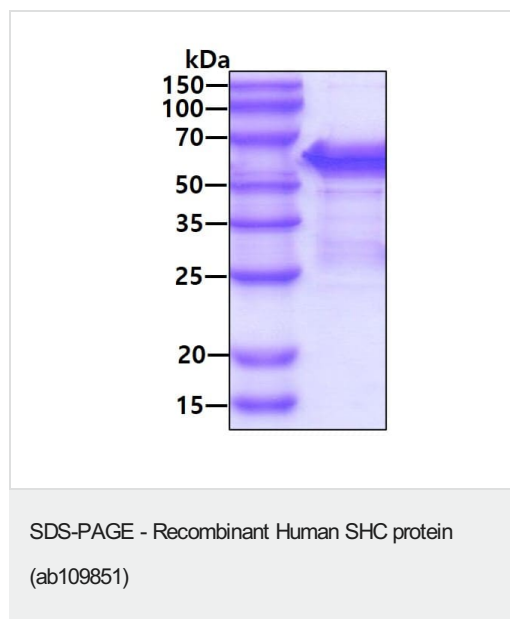
Phosphorylated by activated epidermal growth factor receptor. Phosphorylated in response to FLT4 and KIT signaling. Isoform p46Shc and isoform p52Shc are phosphorylated on tyrosine residues of the Pro-rich domain. Isoform p66Shc is phosphorylated on Ser-36 by PRKCB upon treatment with insulin, hydrogen peroxide or irradiation with ultraviolet light (By similarity). Tyrosine phosphorylated in response to FLT3 signaling (By similarity). Tyrosine phosphorylated by activated PTK2B/PYK2 (By similarity). Tyrosine phosphorylated by ligand-activated ALK. Tyrosine phosphorylated by ligand-activated PDGFRB. Tyrosine phosphorylated by TEK/TIE2. May be tyrosine phosphorylated by activated PTK2/FAK1; tyrosine phosphorylation was seen in an astrocytoma biopsy, where PTK2/FAK1 kinase activity is high, but not in normal brain tissue.

## 細胞内局在

Isoform p52Shc dephosphorylation by PTPN2 may regulate interaction with GRB2.

Cytoplasm; Mitochondrion matrix. Localized to the mitochondria matrix. Targeting of isoform p46Shc to mitochondria is mediated by its first 32 amino acids, which behave as a bona fide mitochondrial targeting sequence. Isoform p52Shc and isoform p66Shc, that contain the same sequence but more internally located, display a different subcellular localization and Mitochondrion. In case of oxidative conditions, phosphorylation at 'Ser-36' of isoform p66Shc, leads to mitochondrial accumulation.

## 画像



15% SDS-PAGE analysis of ab109851 (3μg)

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