

# Shc (Phospho Tyr317) Rabbit pAb

CatalogNo: YP1489

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse

### Applications

- WB, ELISA, IHC

### MW

- 66kD(p66), 52kD(p52), 46kD(p46)kD (Observed)

### Isotype

- IgG

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

## Recommended Dilution Ratios

**WB 1:500-2000**

**IHC 1:50-300**

**ELISA 1:2000-20000**

## Basic Information

**Clonality** Polyclonal

## Immunogen Information

**Immunogen** Synthesized phospho peptide around human Shc (Tyr317)

**Specificity** This antibody detects endogenous levels of Human Mouse Shc (phospho-Tyr317)

## Target Information

**Gene name** SHC1 SHC SHCA

**Protein Name** Shc (Tyr317)

Organism	Gene ID	UniProt ID
Human	<a href="#">6464</a> ;	<a href="#">P29353</a> ;
Mouse	<a href="#">20416</a> ;	<a href="#">P98083</a> ;
Rat	<a href="#">85385</a> ;	<a href="#">Q5M824</a> ;

**Cellular Localization**

Cytoplasm.; [Isoform p46Shc]: 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.; [Isoform p66Shc]: Mitochondrion . In case of oxidative conditions, phosphorylation at 'Ser-36' of isoform p66Shc, leads to mitochondrial accumulation. .

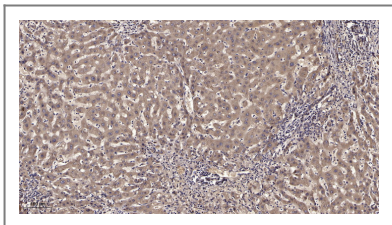
**Tissue specificity** Widely expressed. Expressed in neural stem cells but absent in mature neurons.

**Function**

Domain: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.,Function:Signaling adapter that couples activated growth factor receptors to signaling pathway. 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.,PTM:Phosphorylated by activated epidermal growth factor receptor. Isoform p46Shc and isoform p52Shc are phosphorylated on tyrosine residues of the Pro-rich domain. Isoform p66Shc is phosphorylated on Ser-36 upon treatment with insulin, hydrogen peroxide or irradiation with ultraviolet light.,similarity:Contains 1 PID domain.,similarity:Contains 1 SH2 domain.,subcellular location: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.,subunit:Interacts with the Trk receptors in a phosphotyrosine-dependent manner. Interacts with the NPXY motif of tyrosine-phosphorylated IGF1R and INSR in vitro via the PID domain. Once activated, binds to GRB2. Interacts with tyrosine-phosphorylated CD3T. Interacts with the N-terminal region of APS. Interacts with phosphorylated LRP1 and IRS4. Interacts with INPP5D/SHIP1 and INPPL1/SHIP2.,tissue specificity:Widely expressed. Expressed in neural stem cells but absent in mature neurons.,

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**| Validation Data**



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

## | Contact information

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Please scan the QR code to access additional product information:

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[Antibody](#) | [ELISA Kits](#) | [Protein](#) | [Reagents](#)