

## 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. .

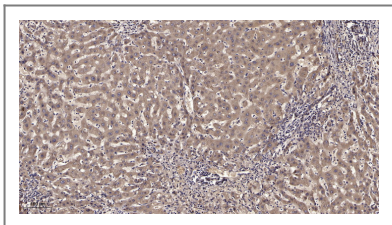
**Tissue specificity** Widely expressed. Expressed in neural stem cells but absent in mature neurons.

**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°C overnight). 2, Tris-EDTA, pH 9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min).

## | Contact information

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