

## SHC1 (Phospho Tyr349/350) Rabbit pAb

CatalogNo: YP1852 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- IHC, WB

#### MW

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

### Storage

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

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

### Recommended Dilution Ratios

WB 1:500-2000

IHC 1:50-200

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** Synthesized peptide derived from human SHC1 (Phospho Tyr349+Tyr350)

**Specificity** This antibody detects endogenous levels of Shc only when phosphorylated at Tyr349 or Tyr350, and dually phosphorylated at two sites. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): HQyyN

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## | Target Information

**Gene name** SHC1 SHC SHCA

**Protein Name** SHC-transforming protein 1 (SHC-transforming protein 3) (SHC-transforming protein A) (Src homology 2 domain-containing-transforming protein C1) (SH2 domain protein C1)

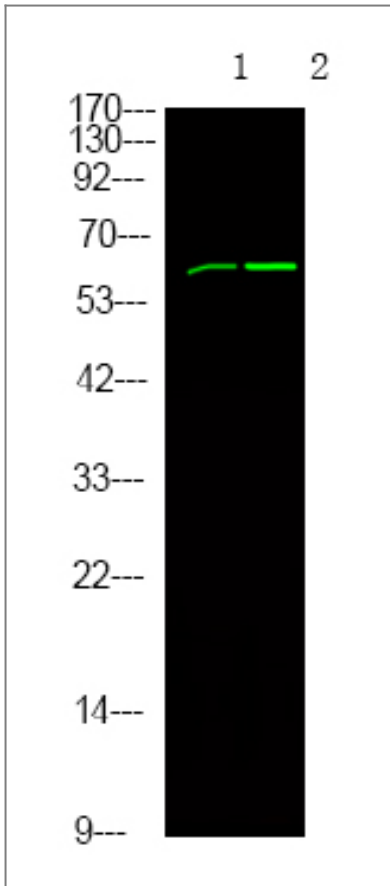
Organism	Gene ID	UniProt ID
Human	<a href="#">6464</a> ;	<a href="#">P29353</a> ;
Mouse	<a href="#">20416</a> ;	<a href="#">P98083</a> ;
Rat	<a href="#">85385</a> ;	<a href="#">Q5M824</a> ;

**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.,

## Validation Data



Western Blot analysis of 1 MCF-7 cell 2 Serum-free treated ,using primary antibody at 1:1000 dilution. Secondary antibody(catalog#:RS23920) was diluted at 1:10000

## Contact information

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