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 phosho 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)

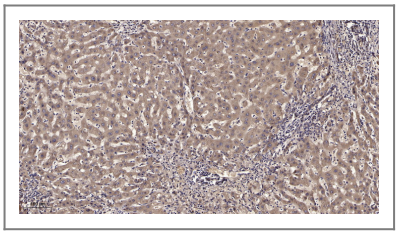
Organism	Gene ID	UniProt ID
Human	6464;	P29353;
Mouse	20416;	P98083;
Rat	85385;	Q5M824;

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



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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