Rabbit SHC Polyclonal Antibody | anti-SHC antibody

Phospho-SHC (Ser36) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329779	**Rabbit**	**Human, MousePredicted Reactivity: Horse (91%), Dog (100%)**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

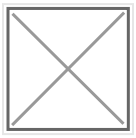
SHC; Polyclonal Antibody; Phospho-SHC (Ser36) Antibody; FLJ26504; p66; p66SHC; SH2 domain protein C1; SHC (Src homology 2 domain containing) transforming protein 1; SHC 1; SHC A; SHC adaptor protein 1; Shc; SHC transforming protein 1; SHC transforming protein; SHC-transforming protein 1; SHC-transforming protein 3; SHC-transforming protein A; SHC1; SHC1_HUMAN; SHCA; Src homology 2 domain-containing-transforming protein C1; anti-SHC antibody

PRODUCT SPECIFICATIONS

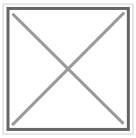
Host	Rabbit
Reactivity	Human, Mouse Predicted Reactivity: Horse (91%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-SHC (Ser36) Antibody detects endogenous levels of SHC only when phosphorylated at Ser36. Tissue Specificity: Widely expressed. Expressed in neural stem cells but absent in mature neurons.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-SHC antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SHC around the phosphorylation site of Ser36.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	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. Isoform p52Shc dephosphorylation by PTPN2 may regulate interaction with GRB2.

Subunit Structure	Interacts with CPNE3; this interaction may mediate the binding of CPNE3 with ERBB2. 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 and DDR2. Interacts with the N-terminal region of APS. Interacts with phosphorylated LRP1 and IRS4. Interacts with INPP5D/SHIP1 and INPPL1/SHIP2. Interacts with TRIM31. Interacts with PTPN6/SHP (tyrosine phosphorylated). Identified in a complex containing FGFR4, NCAM1, CDH2, PLCG1, FRS2, SRC, SHC1, GAP43 and CTT (By similarity). Interacts with ALK, GAB2, GRB7 and KIT. Interacts with FLT4 (tyrosine-phosphorylated). Interacts with EPHB1 and GRB2; activates the MAPK/ERK cascade to regulate cell migration. Interacts with PDGFRB (tyrosine-phosphorylated). Interacts with ERBB4. Interacts with TEK/TIE2 (tyrosine-phosphorylated). Interacts with the Trk receptors NTRK1, NTRK2 and NTRK3; in a phosphotyrosine-dependent manner. Interacts with PTK2/FAK1. Interacts with CEACAM1; this interaction is CEACAM1-phosphorylation-dependent and mediates interaction with EGFR or INSR resulting in decrease coupling of SHC1 to the MAPK3/ERK1-MAPK1/ERK2 pathway (By similarity). Interacts (via PID domain) with PEAK1 (when phosphorylated at 'Tyr-1188'). Found in a complex with PPP1CA, PPP1CC, SHC1 and PEAK1. (Microbial infection) Interacts with herpes simplex virus 1 UL46.
Similarity	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 (By similarity).
Subcellular Location	Cytoplasm. Mitochondrion matrix. Note: 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.Mitochondrion. Note: In case of oxidative conditions, phosphorylation at 'Ser-36' of isoform p66Shc, leads to mitochondrial accumulation.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data
At 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody(Red), diluted at 1/600, was used as secondary antibody.



IHC (Immunohiostchemistry)
Staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis SHC (Phospho-Ser36) using EGF treated HepG2 whole cell lysates.-/+ means absence or presence of N peptideï¼ˆnon-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-SHC antibody	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 angiopoietin receptor TEK/TIE2, and plays a role in the regulation of endothelial cell migration and sprouting angiogenesis.

NCBI AND UNIPROT INFORMATION

NCBI GI #	194239664
NCBI GeneID	6464
NCBI Accession #	NP_001123512.1
NCBI GenBank Nucleotide #	NM_001130040.1
UniProt Accession #	P29353; O15290; Q5T180; Q5T183; Q5T184; Q5T185; Q5T186; Q8N4K5; Q96CL1; B5BU19; D3DV78
Molecular Weight	62,822 Da
NCBI Official Full Name	SHC-transforming protein 1 isoform 3
NCBI Official Synonym Full Names	SHC (Src homology 2 domain containing) transforming protein 1
NCBI Official Symbol	SHC1
NCBI Official Synonym Symbols	SHC; SHCA
NCBI Protein Information	SHC-transforming protein 1; SH2 domain protein C1; SHC-transforming protein 3; SHC-transforming protein A; SHC (Src homology 2 domain-containing) transforming protein 1
UniProt Protein Name	SHC-transforming protein 1
UniProt Gene Name	**SHC1**
UniProt Synonym Gene Names	SHC; SHCA; SH2 domain protein C1
UniProt Entry Name	SHC1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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