



Shc (phospho Tyr427) Polyclonal Antibody

Catalog No	YP-Ab-03558
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	SHC1
Protein Name	SHC-transforming protein 1
Immunogen	The antiserum was produced against synthesized peptide derived from human Shc around the phosphorylation site of Tyr427. AA range:393-442
Specificity	Phospho-Shc (Y427) Polyclonal Antibody detects endogenous levels of Shc protein only when phosphorylated at Y427.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/10000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	SHC1; SHC; SHCA; SHC-transforming protein 1; SHC-transforming protein 3; SHC-transforming protein A; Src homology 2 domain-containing-transforming protein C1; SH2 domain protein C1
Observed Band	66(p66 isoform), 52(p52 isoform), 46(p46 isoform)kD
Cell Pathway	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

Background

This gene encodes three main isoforms that differ in activities and subcellular location. While all three are adapter proteins in signal transduction pathways, the longest (p66Shc) may be involved in regulating life span and the effects of reactive oxygen species. The other two isoforms, p52Shc and p46Shc, link activated receptor tyrosine kinases to the Ras pathway by recruitment of the GRB2/SOS complex. p66Shc is not involved in Ras activation. Unlike the other two isoforms, p46Shc is targeted to the mitochondrial matrix. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2011],

matters needing attention

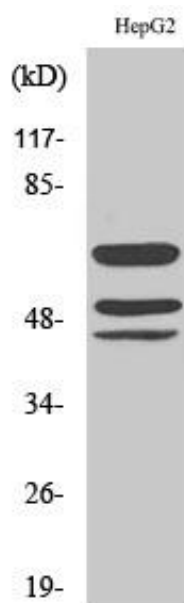
Avoid repeated freezing and thawing!

Usage suggestions

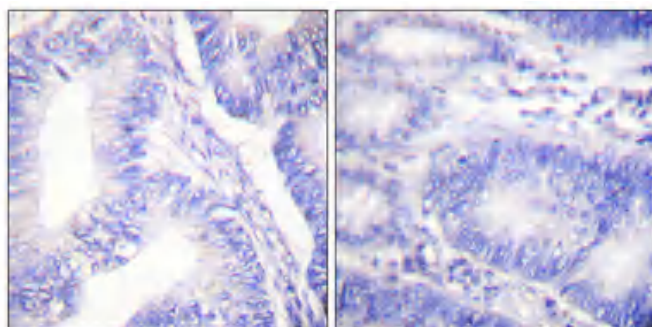
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



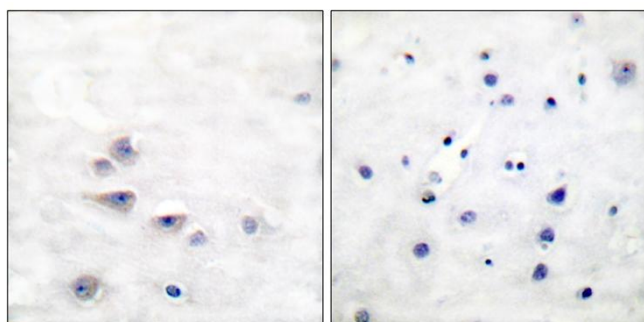
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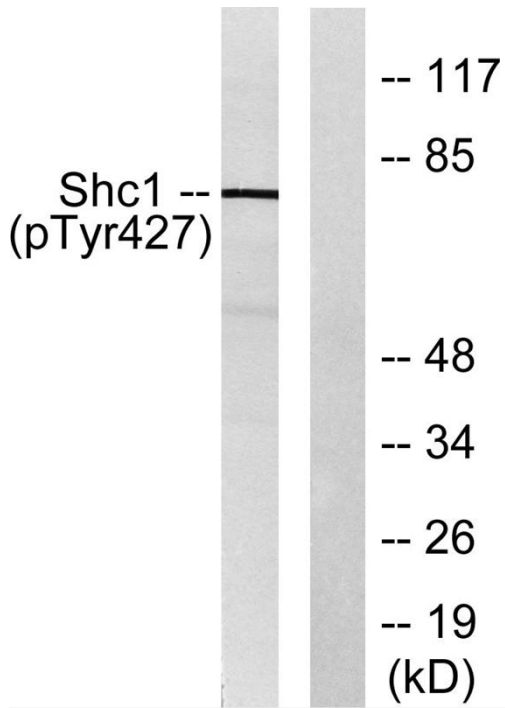
Western Blot analysis of various cells using Phospho-Shc (Y427) Polyclonal Antibody diluted at 1:500



Immunohistochemical analysis of paraffin-embedded Human colon cancer. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using Shc (Phospho-Tyr427) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 293 cells treated with EGF 200ng/ml 5', using Shc (Phospho-Tyr427) Antibody. The lane on the right is blocked with the phospho peptide.