



Shc Monoclonal Antibody

Catalog No	YP-mAb-04209
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	SHC1
Immunogen	The antiserum was produced against synthesized peptide derived from human Shc. AA range:393-442
Specificity	Shc Monoclonal Antibody detects endogenous levels of Shc protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	SHC;SH2 domain protein C1;SHC-transforming protein A;SHC-transforming protein 3;SHC1;SHC-transforming protein 1;SHCA;Src homology 2 domain-containing-transforming protein C1
Observed Band	66(p66 isof/m) 52(p52 isof/m) 46(p46 isof/m)kD
Calculated Molecular Weight	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.

Products Images

Western Blot analysis of various cells using Shc Monoclonal Antibody

