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Shc (Phospho-Tyr427) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52354

Product Information

Application	WB, IHC
Primary Accession	P29353
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62822

Additional Information

Gene ID	6464
Other Names	SHC-transforming protein 1, SHC-transforming protein 3, SHC-transforming protein A, Src homology 2 domain-containing-transforming protein C1, SH2 domain protein C1, SHC1, SHC, SHCA
Dilution	WB~~1:1000 IHC~~1:50~100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	SHC1 (HGNC:10840)
Synonyms	SHC, SHCA
Function	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. Involved in the oncostatin-M-mediated signaling pathway through type II OSM receptor complex (heterodimers composed of OSMR and IL6ST) where it contributes to activation of the Ras/Raf/MAPK pathway through JAK1-dependent recruitment to OSMR subunit of OSMR complex and SHC1 association with GRB2 (PubMed:11016927).

Cellular Location Cytoplasm. Cell junction, focal adhesion [Isoform p66Shc]: Mitochondrion. Note=In case of oxidative conditions, phosphorylation at 'Ser-36' of isoform p66Shc, leads to mitochondrial accumulation.

Tissue Location Widely expressed. Expressed in neural stem cells but absent in mature neurons

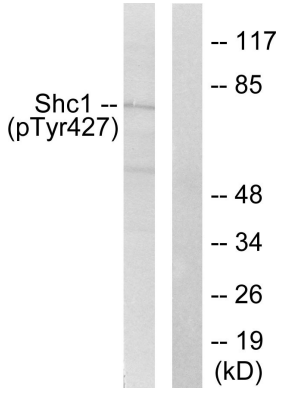
Background

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.

References

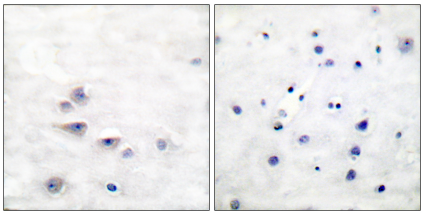
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Harun R.B.,et al.Genomics 42:349-352(1997).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Goshima N.,et al.Nat. Methods 5:1011-1017(2008).

Images



Western blot analysis of extracts from Hela cells treated with Calyculin A (50ng/ml, 15mins), using Shc (phospho-Tyr427) antibody.

Immunohistochemical analysis of paraffin-embedded human brain tissue using Shc (phospho-Tyr427) antibody



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