

Anti-SHC Antibody

Catalog # ABO11201

Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P29353
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for SHC-transforming protein 1(SHC1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	62822
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Frozen Section), 0.5-1 μ g/ml, Rat, Human, Mouse Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Rat, Mouse
Subcellular Localization	Cytoplasm.
Tissue Specificity	Widely expressed. Expressed in neural stem cells but absent in mature neurons.
Source	Eukaryota
Protein Name	SHC-transforming protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SHC(424-440aa DPSYVNVQNLDKARQAV), different from the related rat and mouse sequences by two amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Contains 1 PID domain.

Protein Information

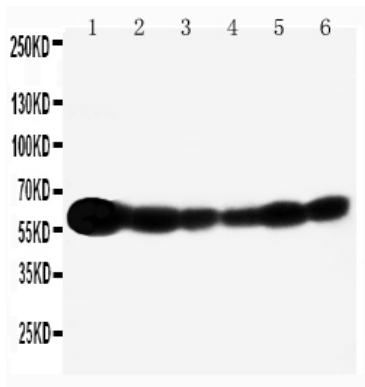
Name	SHC1 (HGNC:10840)
Synonyms	SHC, SHCA
Function	Signaling adapter that couples activated growth factor receptors to signaling pathways. Participates in a signaling cascade initiated by activated KIT and KITLG/SCF. Isoform p46Shc and isoform p52Shc, once phosphorylated, couple activated receptor tyrosine 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 angiotensin 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

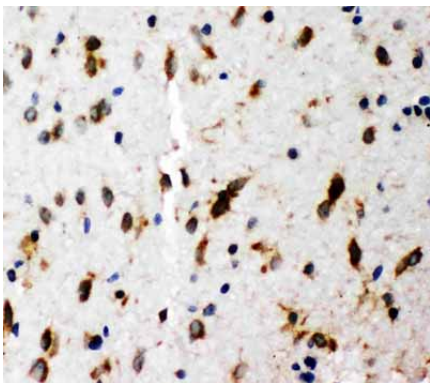
SHC1(SHC-transforming protein 1), also known as SHCA, is a protein that in humans is encoded by the SHC1 gene. SCOP classifies the 3D structure as belonging to the SH2 domain family. By Southern analysis of somatic cell hybrids followed by both isotopic and fluorescence in situ hybridization, Huebner et al.(1994) assigned the SHC1 gene to 1q21. Yulug et al.(1995) used fluorescence in situ hybridization to map the SHC1 gene to 1q21. By the same method, an SHC-related sequence(SHCL1) was mapped to 17q21-q22. By FISH analysis and direct sequencing of vectorette library PCR products, Harun et al.(1997) identified SHC1P1, a 3.2-kb processed pseudogene, in Xq12-q13.1. SHC1P1 is 85% identical to mouse Shc p66. Reporter assays showed FKHL1 transactivates CAT, suggesting a capacity to augment antioxidant scavenging. Nemoto and Finkel(2002) concluded that there is an important functional relationship between forkhead proteins(e.g., FKHL1), SHC1, and intracellular oxidants, all of which are though to be involved in the aging process in worms and mammals.



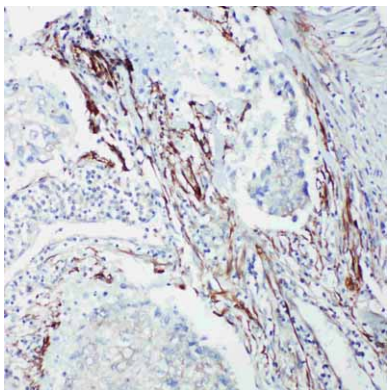
Anti-SHC antibody, ABO11201, Western blotting
Recombinant Protein Detection Source: E.coli derived -recombinant human SHC1, 35.0KD(162aa tag+D424-P578)
Lane 1: Recombinant Human SHC1 Proteins 10ng
Lane 2: Recombinant Human SHC1 Proteins 5ng
Lane 3: Recombinant Human SHC1 Proteins 2.5ng



Anti-SHC antibody, ABO11201, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: A549 Cell Lysate
Lane 3: A431 Cell Lysate
Lane 4: 293T Cell Lysate
Lane 5: HELA Cell Lysate
Lane 6: JURKAT Cell Lysate

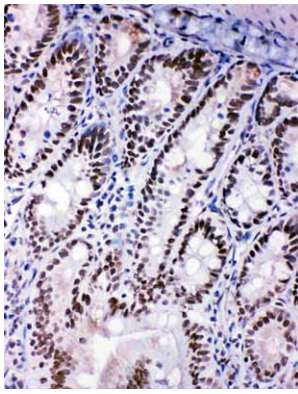


Anti-SHC antibody, ABO11201, IHC(P)
IHC(P): Rat Brain Tissue

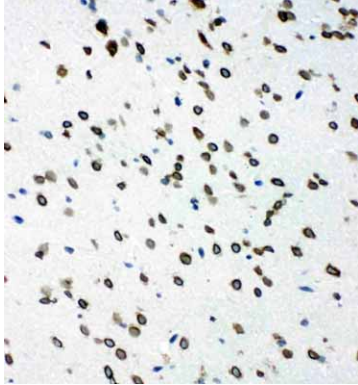


Anti-SHC antibody, ABO11201, IHC(P)
IHC(P): Human Lung Cancer Tissue

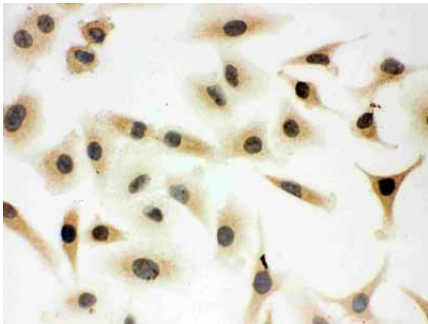
Anti-SHC antibody, ABO11201, IHC(F)
IHC(F): Rat Intestine Tissue



Anti-SHC antibody, ABO11201, IHC(F)IHC(F): Rat Brain Tissue



Anti-SHC antibody, ABO11201, ICCICC: A549 Cell



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