10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-SHC Antibody
Catalog # ABO11201

Specification

Anti-SHC Antibody - Product Information

Application	**WB, IHC, 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.

Anti-SHC Antibody - 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 MW KDa

Application Details
Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human, Mouse
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Cytoplasm.

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

Protein Name
SHC-transforming protein 1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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.

Anti-SHC Antibody - Protein Information

Name SHC1

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.

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

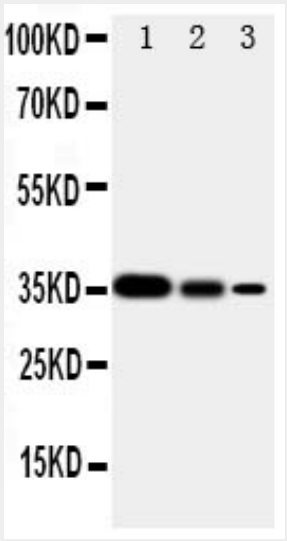
Anti-SHC Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

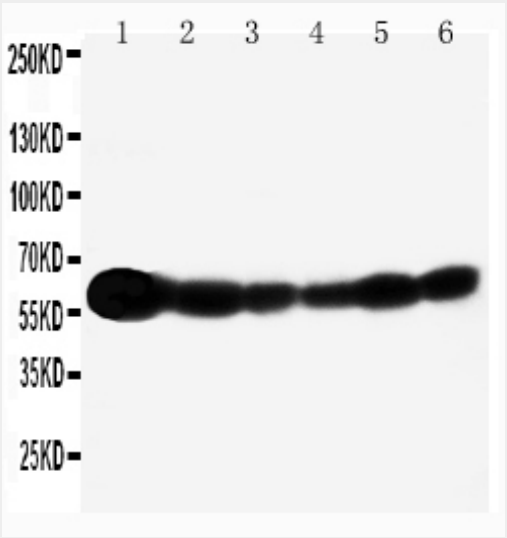
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

- Flow Cytomety
- Cell Culture

Anti-SHC Antibody - Images



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



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

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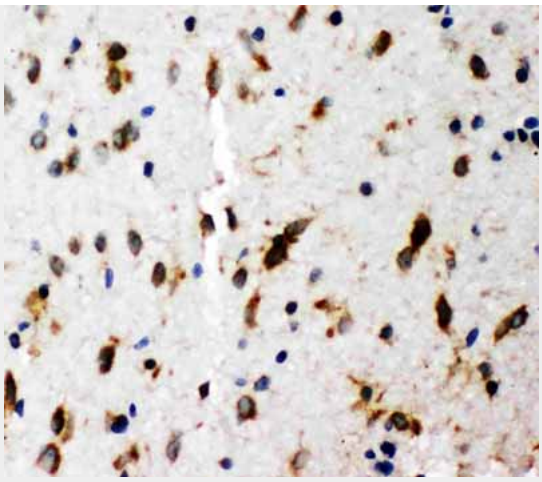
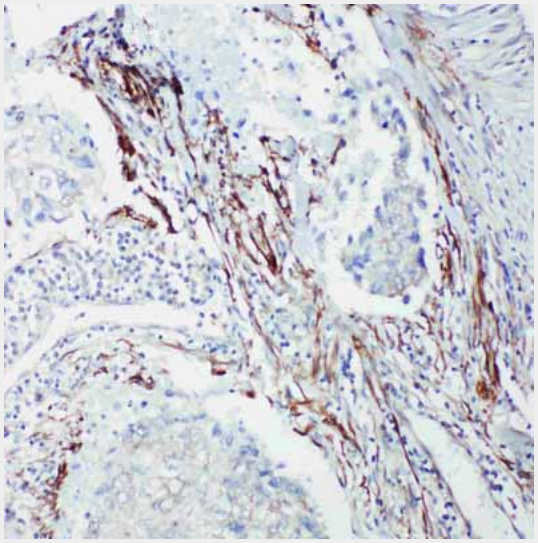
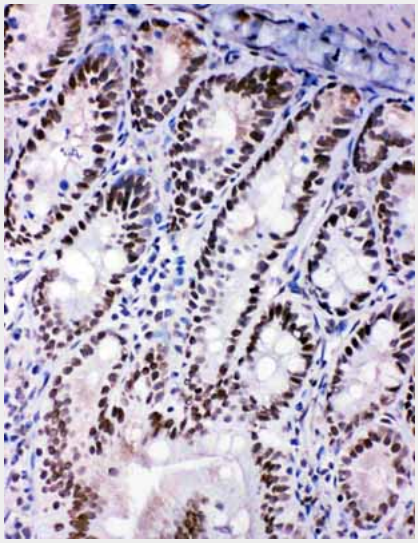


Anti-SHC antibody, ABO11201, IHC(P)IHC(P): Rat Brain Tissue



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



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

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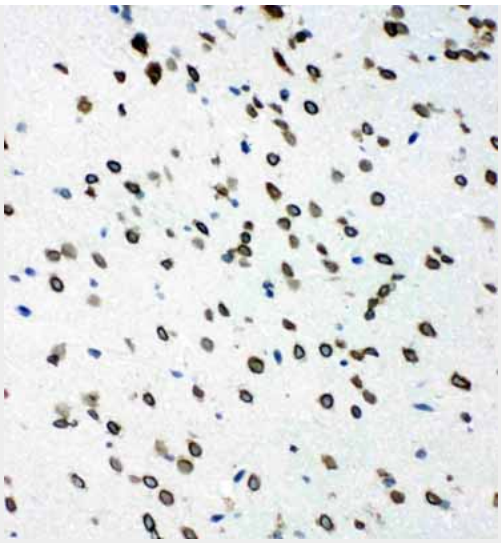
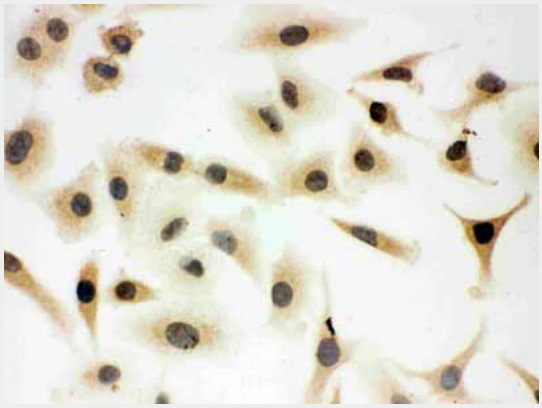


Anti-SHC antibody, ABO11201, IHC(F)IHC(F): Rat Brain Tissue



Anti-SHC antibody, ABO11201, ICCICC: A549 Cell

Anti-SHC Antibody - 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 FKHRL1 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., FKHRL1), SHC1, and intracellular oxidants, all of which are though to be involved in the aging process in worms and mammals.