

**p66 / SHC Antibody (clone 3F4)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS13394****Specification**

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**p66 / SHC Antibody (clone 3F4) - Product Information**

Application	WB, IF, IHC
Primary Accession	<a href="#">P29353</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	63kDa KDa

**p66 / SHC Antibody (clone 3F4) - 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

**Reconstitution & Storage**

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

**Precautions**

p66 / SHC Antibody (clone 3F4) is for research use only and not for use in diagnostic or therapeutic procedures.

**p66 / SHC Antibody (clone 3F4) - 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.

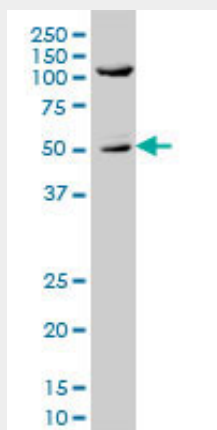
**Tissue Location**

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

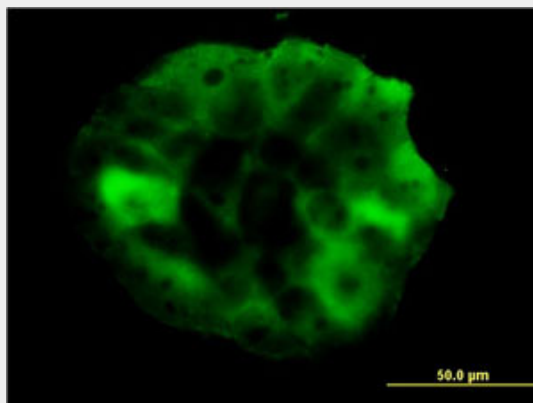
**p66 / SHC Antibody (clone 3F4) - Protocols**

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

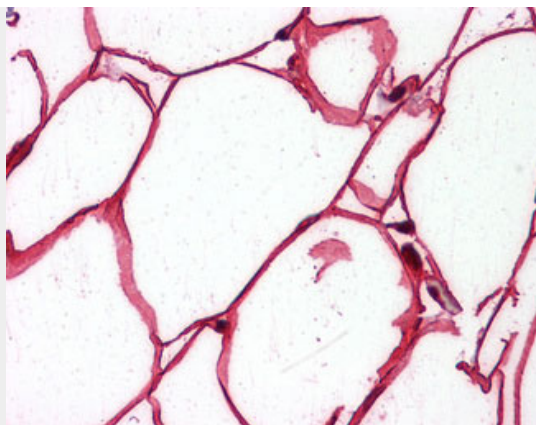
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**p66 / SHC Antibody (clone 3F4) - Images**

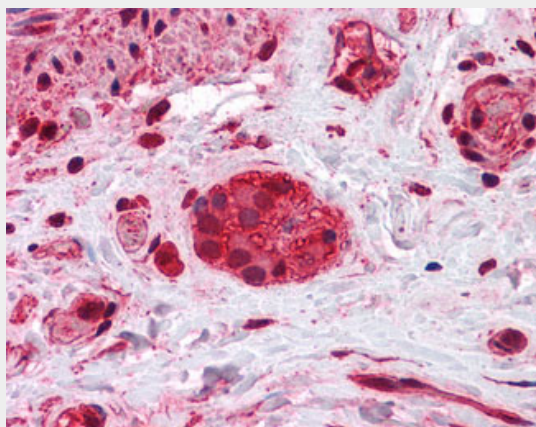
SHC1 monoclonal antibody clone 3F4 Western blot of SHC1 expression in A-431.



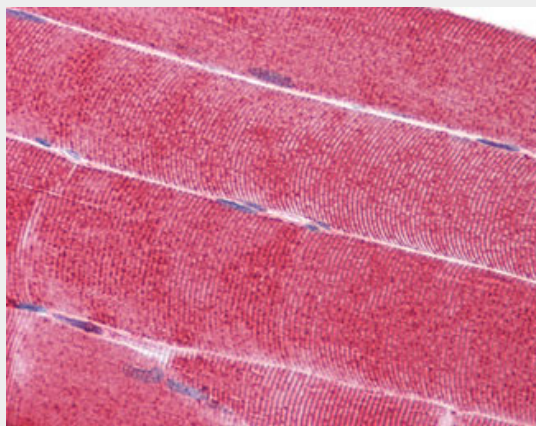
Immunofluorescence of monoclonal antibody to SHC1 on A-431 cells (antibody concentration 10 ug/ml).



Anti-SHC1 antibody IHC of human adipocytes.



Anti-SHC1 antibody IHC of human colon, myenteric plexus.



Anti-SHC1 antibody IHC of human skeletal muscle.

#### **p66 / SHC Antibody (clone 3F4) - 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.

#### **p66 / SHC Antibody (clone 3F4) - References**

Pelicci G., et al. Cell 70:93-104(1992).  
Migliaccio E., et al. EMBO J. 16:706-716(1997).  
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).