

Goat Anti-SIAH1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1989a**Specification**

Goat Anti-SIAH1 Antibody - Product Information

Application	WB, IP, E
Primary Accession	Q8IUQ4
Other Accession	NP_001006611 , 6477 , 20437 (mouse)
Reactivity	Human, Rat
Predicted	Mouse, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	31123

Goat Anti-SIAH1 Antibody - Additional Information**Gene ID** 6477**Other Names**

E3 ubiquitin-protein ligase SIAH1, 6.3.2.-, Seven in absentia homolog 1, Siah-1, Siah-1a, SIAH1, HUMSIAH

Dilution

WB~~1:1000

IP~~N/A

E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-SIAH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SIAH1 Antibody - Protein Information**Name** SIAH1**Synonyms** HUMSIAH

Function

E3 ubiquitin-protein ligase that mediates ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:<a href="http://www.uniprot.org/citations/14506261"

target="_blank">14506261, PubMed:<a href="http://www.uniprot.org/citations/14645235"

target="_blank">14645235, PubMed:<a href="http://www.uniprot.org/citations/14654780"

target="_blank">14654780, PubMed:<a href="http://www.uniprot.org/citations/15064394"

target="_blank">15064394, PubMed:<a href="http://www.uniprot.org/citations/16085652"

target="_blank">16085652, PubMed:<a href="http://www.uniprot.org/citations/19224863"

target="_blank">19224863, PubMed:<a href="http://www.uniprot.org/citations/20508617"

target="_blank">20508617, PubMed:<a href="http://www.uniprot.org/citations/22483617"

target="_blank">22483617, PubMed:<a href="http://www.uniprot.org/citations/28546513"

target="_blank">28546513, PubMed:<a href="http://www.uniprot.org/citations/32430360"

target="_blank">32430360, PubMed:<a href="http://www.uniprot.org/citations/33591310"

target="_blank">33591310, PubMed:<a href="http://www.uniprot.org/citations/9334332"

target="_blank">9334332, PubMed:<a href="http://www.uniprot.org/citations/9858595"

target="_blank">9858595). E3 ubiquitin ligases accept ubiquitin from an E2

ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to

targeted substrates (PubMed:<a href="http://www.uniprot.org/citations/14506261"

target="_blank">14506261, PubMed:<a href="http://www.uniprot.org/citations/14645235"

target="_blank">14645235, PubMed:<a href="http://www.uniprot.org/citations/14654780"

target="_blank">14654780, PubMed:<a href="http://www.uniprot.org/citations/15064394"

target="_blank">15064394, PubMed:<a href="http://www.uniprot.org/citations/16085652"

target="_blank">16085652, PubMed:<a href="http://www.uniprot.org/citations/19224863"

target="_blank">19224863, PubMed:<a href="http://www.uniprot.org/citations/20508617"

target="_blank">20508617, PubMed:<a href="http://www.uniprot.org/citations/22483617"

target="_blank">22483617, PubMed:<a href="http://www.uniprot.org/citations/9334332"

target="_blank">9334332, PubMed:<a href="http://www.uniprot.org/citations/9858595"

target="_blank">9858595). Mediates E3 ubiquitin ligase activity either through direct binding

to substrates or by functioning as the essential RING domain subunit of larger E3 complexes

(PubMed:14506261,

PubMed:14645235,

PubMed:14654780,

PubMed:15064394,

PubMed:16085652,

PubMed:19224863,

PubMed:20508617,

PubMed:22483617,

PubMed:9334332,

PubMed:9858595).

Triggers the ubiquitin-mediated degradation of many substrates, including proteins involved in

transcription regulation (ELL2, MYB, POU2AF1, PML and RBBP8), a cell surface receptor (DCC), the

cell-surface receptor-type tyrosine kinase FLT3, the cytoplasmic signal transduction molecules

(KLF10/TIEG1 and NUMB), an antiapoptotic protein (BAG1), a microtubule motor protein (KIF22), a

protein involved in synaptic vesicle function in neurons (SYP), a structural protein (CTNNB1) and

SNCAIP (PubMed:<a href="http://www.uniprot.org/citations/10747903"

target="_blank">10747903, PubMed:<a href="http://www.uniprot.org/citations/11146551"

target="_blank">11146551, PubMed:<a href="http://www.uniprot.org/citations/11389839"

target="_blank">11389839, PubMed:<a href="http://www.uniprot.org/citations/11389840"

target="_blank">11389840, PubMed:<a href="http://www.uniprot.org/citations/11483517"

target="_blank">11483517, PubMed:<a href="http://www.uniprot.org/citations/11483518"

target="_blank">11483518, PubMed:<a href="http://www.uniprot.org/citations/11752454"

target="_blank">11752454, PubMed:<a href="http://www.uniprot.org/citations/12072443"

target="_blank">12072443). Confers constitutive instability to HIPK2 through proteasomal

degradation (PubMed:<a href="http://www.uniprot.org/citations/18536714"

target="_blank">18536714, PubMed:<a href="http://www.uniprot.org/citations/33591310"

target="_blank">33591310). It is thereby involved in many cellular processes such as

apoptosis, tumor suppression, cell cycle, axon guidance, transcription regulation, spermatogenesis

and TNF-alpha signaling (PubMed:14506261, PubMed:14645235, PubMed:14654780, PubMed:15064394, PubMed:16085652, PubMed:19224863, PubMed:20508617, PubMed:22483617, PubMed:9334332, PubMed:9858595). Has some overlapping function with SIAH2 (PubMed:14506261, PubMed:14645235, PubMed:14654780, PubMed:15064394, PubMed:16085652, PubMed:19224863, PubMed:20508617, PubMed:22483617, PubMed:9334332, PubMed:9858595). Induces apoptosis in cooperation with PEG3 (By similarity). Upon nitric oxid (NO) generation that follows apoptotic stimulation, interacts with S-nitrosylated GAPDH, mediating the translocation of GAPDH to the nucleus (By similarity). GAPDH acts as a stabilizer of SIAH1, facilitating the degradation of nuclear proteins (By similarity). Mediates ubiquitination and degradation of EGLN2 and EGLN3 in response to the unfolded protein response (UPR), leading to their degradation and subsequent stabilization of ATF4 (By similarity). Also part of the Wnt signaling pathway in which it mediates the Wnt-induced ubiquitin- mediated proteasomal degradation of AXIN1 (PubMed:28546513, PubMed:32430360).

Cellular Location

Cytoplasm. Nucleus. Note=Predominantly cytoplasmic. Partially nuclear

Tissue Location

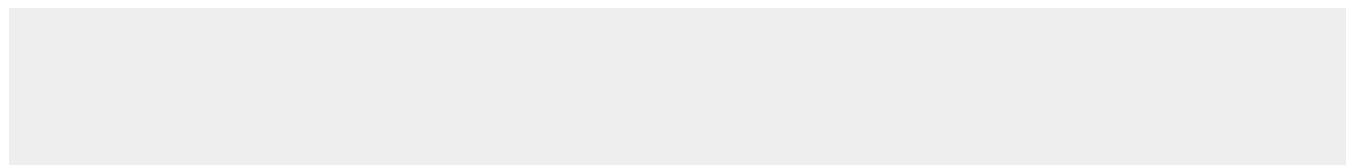
Widely expressed at a low level. Down-regulated in advanced hepatocellular carcinomas.

Goat Anti-SIAH1 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 Cytometry](#)
- [Cell Culture](#)

Goat Anti-SIAH1 Antibody - Images





AF1989a staining (1 μ g/ml) of Human Liver lysate (RIPA buffer, 35 μ g total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-SIAH1 Antibody - Background

This gene encodes a protein that is a member of the seven in absentia homolog (SIAH) family. The protein is an E3 ligase and is involved in ubiquitination and proteasome-mediated degradation of specific proteins. The activity of this ubiquitin ligase has been implicated in the development of certain forms of Parkinson's disease, the regulation of the cellular response to hypoxia and induction of apoptosis. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized.

Goat Anti-SIAH1 Antibody - References

SIAH-1 interacts with mammalian polyhomeotic homologues HPH2 and affects its stability via the ubiquitin-proteasome pathway. Wu H, et al. Biochem Biophys Res Commun, 2010 Jul 2. PMID 20471960.

E2F1 represses beta-catenin/TCF activity by direct up-regulation of Siah1. Xie W, et al. J Cell Mol Med, 2009 Aug. PMID 20187294.

Direct ubiquitination of beta-catenin by Siah-1 and regulation by the exchange factor TBL1. Dimitrova YN, et al. J Biol Chem, 2010 Apr 30. PMID 20181957.

Distinct expression patterns of the E3 ligase SIAH-1 and its partner Kid/KIF22 in normal tissues and in the breast tumoral processes. Bruzzoni-Giovanelli H, et al. J Exp Clin Cancer Res, 2010 Feb 9. PMID 20144232.

The expression of SIAH1 is downregulated and associated with Bim and apoptosis in human breast cancer tissues and cells. Wen YY, et al. Mol Carcinog, 2010 May. PMID 20082325.