10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat anti-SIAH1, Biotinylated Antibody

Peptide-affinity purified goat antibody
Catalog # AF4422a

Product Information

Application	WB, IP, Pep-ELISA
Primary Accession	Q8IUQ4
Other Accession	NP_003022.3, NP_001006611.1
Reactivity	Human, Mouse, Rat, Dog, Bovine
Host	Goat
Clonality	Polyclonal
Clone Names	SIAH1
Calculated MW	31123

Additional Information

Gene ID	6477
Other Names	SIAH1; siah E3 ubiquitin protein ligase 1; SIAH1A; seven in absentia homolog 1; siah-1a
Dilution	WB~~1:1000 IP~~N/A Pep-ELISA~~N/A
Format	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
Immunogen	This antibody is expected to recognize both reported isoforms (NP_003022.3; NP_001006611.1).
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, Biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SIAH1
Synonyms	HUMSIAH
Function	E3 ubiquitin-protein ligase that mediates ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:14506261, PubMed:14645235, PubMed:14654780, PubMed:15064394, PubMed:16085652, PubMed:19224863, PubMed:20508617,

PubMed:22483617, PubMed:28546513, PubMed:32430360, PubMed:33591310, PubMed:9334332, PubMed: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:14506261, PubMed:14645235, PubMed:14654780, PubMed:15064394, PubMed:16085652, PubMed:19224863, PubMed:20508617, PubMed:22483617, PubMed:9334332, PubMed: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:10747903, PubMed:11146551, PubMed:11389839, PubMed:11389840, PubMed:11483517, PubMed:11483518, PubMed:11752454, PubMed:12072443). Confers constitutive instability to HIPK2 through proteasomal degradation (PubMed:18536714, PubMed: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.