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SIAH1 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10114

Product Information

Application	WB, IHC
Primary Accession	Q8IUQ4
Other Accession	Q8IUQ4-2, NP_001006611, NM_001006610
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Zebrafish, Chicken, Dog, Guinea Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31123

Additional Information

Gene ID	6477
Alias Symbol	SIAH1A
Other Names	E3 ubiquitin-protein ligase SIAH1, 632-, Seven in absentia homolog 1, Siah-1, Siah-1a, SIAH1, HUMSIAH
Target/Specificity	SIAH1 is 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.
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 100 ul of distilled water. Final anti-SIAH1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	SIAH1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

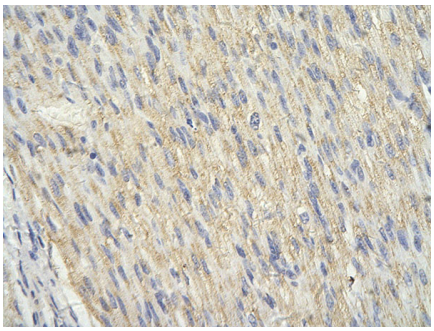
Name	SIAH1
Synonyms	HUMSIAH

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.

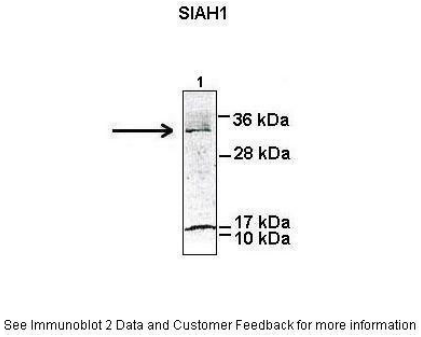
Background

This is a rabbit polyclonal antibody against SIAH1. It was validated on Western Blot using a cell lysate as a positive control. Abgent strives to provide antibodies covering each member of a whole protein family of your interest. We also use our best efforts to provide you antibodies recognize various epitopes of a target protein. For availability of antibody needed for your experiment, please inquire (sales@abgent.com).

Images



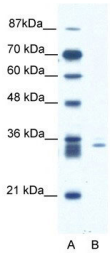
SIAH1 antibody (AI10114) in Human Heart cells using Immunohistochemistry
Rabbit Anti-SIAH1 antibody
Catalog Number: AI10114
Paraffin Embedded Tissue: Human Heart cell
Cellular Data: Epithelial cells of renal tubule
Antibody Concentration: 4.0-8.0 µg/ml
Magnification: 400X



See Immunoblot 2 Data and Customer Feedback for more information

SIAH1 antibody - N-terminal region (AI10114) in Human HEK293T cells using Western Blot
Application: Western blotting
Species+tissue/cell type: Human embryonic kidney 293T
How many ug â€™s of tissue/cell lysate
run on the gel:1: 50 ug human HEK-293T cell lysate

Primary Antibody Dilution: 1:1000
Secondary Antibody: Anti-rabbit-IgG
Secondary Antibody Dilution: 1:5000
SIAH1 is strongly supported by BioGPS gene expression data to be expressed in Human HEK293T cells



SIAH1 antibody - N-terminal region (AI10114) in Human Jurkat cells using Western Blot
WB Suggested Anti-SIAH1 Antibody Titration: 1.25 µg/ml
ELISA Titer: 1:312500
Positive Control: Jurkat cell lysate