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Anti-SIAH2 Antibody

Rabbit polyclonal antibody to SIAH2
Catalog # AP60394

Product Information

Application	WB, IF/IC, IHC
Primary Accession	O43255
Other Accession	Q06986
Reactivity	Human, Mouse, Rat, Zebrafish
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34615

Additional Information

Gene ID	6478
Other Names	E3 ubiquitin-protein ligase SIAH2; Seven in absentia homolog 2; Siah-2; hSiah2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SIAH2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

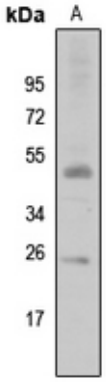
Name	SIAH2
Function	E3 ubiquitin-protein ligase that mediates ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:11483518, PubMed:19224863, PubMed:9334332). E3 ubiquitin ligases accept ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates (PubMed:11483518, PubMed:19224863, PubMed:9334332). 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:11483518, PubMed:19224863, PubMed:9334332). Triggers the ubiquitin-mediated degradation of many substrates, including proteins involved in transcription regulation (GPS2, POU2AF1, PML, NCOR1), a cell surface receptor (DCC), an antiapoptotic protein (BAG1), and a protein involved in synaptic vesicle

	function in neurons (SYP) (PubMed:11483518, PubMed:19224863, PubMed:9334332). Mediates ubiquitination and proteasomal degradation of DYRK2 in response to hypoxia (PubMed:22878263). It is thereby involved in apoptosis, tumor suppression, cell cycle, transcription and signaling processes (PubMed:11483518, PubMed:19224863, PubMed:22878263, PubMed:9334332). Has some overlapping function with SIAH1 (PubMed:11483518, PubMed:19224863, PubMed:9334332). Triggers the ubiquitin-mediated degradation of TRAF2, whereas SIAH1 does not (PubMed:12411493). Promotes monoubiquitination of SNCA (PubMed:19224863). Regulates cellular clock function via ubiquitination of the circadian transcriptional repressors NR1D1 and NR1D2 leading to their proteasomal degradation (PubMed:26392558). Plays an important role in mediating the rhythmic degradation/clearance of NR1D1 and NR1D2 contributing to their circadian profile of protein abundance (PubMed:26392558). 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.
Cellular Location	Cytoplasm. Nucleus Note=Predominantly cytoplasmic. Partially nuclear
Tissue Location	Widely expressed at low level.

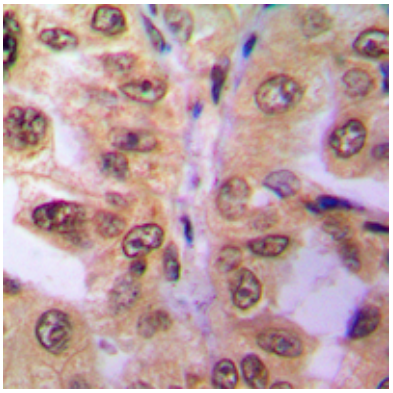
Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SIAH2. The exact sequence is proprietary.

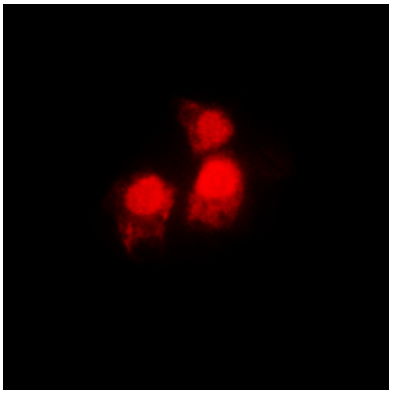
Images



Western blot analysis of SIAH2 expression in zebrafish (A) whole cell lysates.



Immunohistochemical analysis of SIAH2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of SIAH2 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.