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

Siah-2 Polyclonal Antibody

Catalog # AP72480

Product Information

Application	WB, IHC-P
Primary Accession	O43255
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34615

Additional Information

Gene ID	6478
Other Names	SIAH2; E3 ubiquitin-protein ligase SIAH2; Seven in absentia homolog 2; Siah-2; hSiah2
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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.

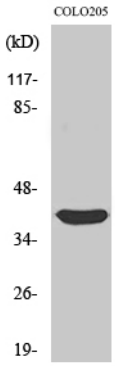
Cellular Location Cytoplasm. Nucleus Note=Predominantly cytoplasmic. Partially nuclear

Tissue Location Widely expressed at low level.

Background

E3 ubiquitin-protein ligase that mediates ubiquitination and subsequent proteasomal degradation of target proteins. 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. Mediates E3 ubiquitin ligase activity either through direct binding to substrates or by functioning as the essential RING domain subunit of larger E3 complexes. 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). Mediates ubiquitination and proteasomal degradation of DYRK2 in response to hypoxia. It is thereby involved in apoptosis, tumor suppression, cell cycle, transcription and signaling processes. Has some overlapping function with SIAH1. Triggers the ubiquitin- mediated degradation of TRAF2, whereas SIAH1 does not. Promotes monoubiquitination of SNCA. Regulates cellular clock function via ubiquitination of the circadian transcriptional repressors NR1D1 and NR1D2 leading to their proteasomal degradation. Plays an important role in mediating the rhythmic degradation/clearance of NR1D1 and NR1D2 contributing to their circadian profile of protein abundance (PubMed:26392558).

Images



Western Blot analysis of various cells using Siah-2 Polyclonal Antibody