

## **Anti-SIAH2 Antibody**

Rabbit polyclonal antibody to SIAH2 Catalog # AP60394

## **Specification**

# **Anti-SIAH2 Antibody - Product Information**

Application WB, IF/IC, IHC
Primary Accession O43255
Other Accession O06986

Reactivity Human, Mouse, Rat, Zebrafish

Host Rabbit
Clonality Polyclonal
Calculated MW 34615

# **Anti-SIAH2 Antibody - 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), IH (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A IHC~~1:100~500

# **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

### **Anti-SIAH2 Antibody - Protein Information**

## Name SIAH2

### **Function**

E3 ubiquitin-protein ligase that mediates ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:<a href="http://www.uniprot.org/citations/11483518" target="\_blank">11483518</a>, PubMed:<a href="http://www.uniprot.org/citations/19224863" target="\_blank">19224863</a>, PubMed:<a href="http://www.uniprot.org/citations/9334332" target="\_blank">9334332</a>). 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/11483518" target=" blank">11483518</a>, PubMed:<a href="http://www.uniprot.org/citations/19224863" target="blank">19224863</a>, PubMed:<a href="http://www.uniprot.org/citations/9334332" target=" blank">9334332</a>). 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:<a href="http://www.uniprot.org/citations/11483518" target=" blank">11483518</a>, PubMed: <a href="http://www.uniprot.org/citations/19224863" target=" blank">19224863</a>, PubMed:<a href="http://www.uniprot.org/citations/9334332" target="\_blank">9334332</a>). 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:<a href="http://www.uniprot.org/citations/11483518" target="\_blank">11483518</a>, PubMed: <a href="http://www.uniprot.org/citations/19224863" target="blank">19224863</a>, PubMed:<a href="http://www.uniprot.org/citations/9334332" target=" blank">9334332</a>). Mediates ubiquitination and proteasomal degradation of DYRK2 in response to hypoxia (PubMed:<a href="http://www.uniprot.org/citations/22878263" target=" blank">22878263</a>). It is thereby involved in apoptosis, tumor suppression, cell cycle, transcription and signaling processes (PubMed: <a href="http://www.uniprot.org/citations/11483518" target=" blank">11483518</a>, PubMed:<a href="http://www.uniprot.org/citations/19224863" target="blank">19224863</a>, PubMed:<a href="http://www.uniprot.org/citations/22878263" target="blank">22878263</a>, PubMed:<a href="http://www.uniprot.org/citations/9334332" target="blank">9334332</a>). Has some overlapping function with SIAH1 (PubMed:<a href="http://www.uniprot.org/citations/11483518" target="\_blank">11483518</a>, PubMed:<a href="http://www.uniprot.org/citations/19224863" target="blank">19224863</a>, PubMed:<a href="http://www.uniprot.org/citations/9334332" target="\_blank">9334332</a>). Triggers the ubiquitin-mediated degradation of TRAF2, whereas SIAH1 does not (PubMed:<a href="http://www.uniprot.org/citations/12411493" target=" blank">12411493</a>). Promotes monoubiquitination of SNCA (PubMed: <a href="http://www.uniprot.org/citations/19224863" target=" blank">19224863</a>). Regulates cellular clock function via ubiquitination of the circadian transcriptional repressors NR1D1 and NR1D2 leading to their proteasomal degradation (PubMed:<a href="http://www.uniprot.org/citations/26392558" target=" blank">26392558</a>). Plays an important role in mediating the rhythmic degradation/clearance of NR1D1 and NR1D2 contributing to their circadian profile of protein abundance (PubMed:<a href="http://www.uniprot.org/citations/26392558" target=" blank">26392558</a>). 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.

#### **Anti-SIAH2 Antibody - Protocols**

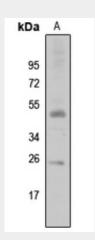
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation

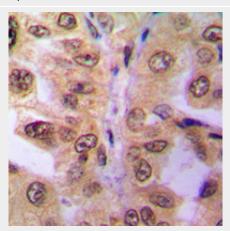


- Flow Cytomety
- Cell Culture

# **Anti-SIAH2 Antibody - Images**



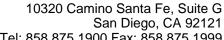
Western blot analysis of SIAH2 expression in zebrafish (A) whole cell lysates.



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





Tel: 858.875.1900 Fax: 858.875.1999

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.

# Anti-SIAH2 Antibody - Background

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