abcam

Product datasheet

Anti-SIAH1 antibody ab2237

★★★★★ 1 Abreviews 33 References 4 Images

Overview

Product name	Anti-SIAH1 antibody
Description	Goat polyclonal to SIAH1
Host species	Goat
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Rat, Human **Predicted to work with:** Mouse, Cow, Dog
Immunogen	Synthetic peptide corresponding to Human SIAH1 aa 2-16 (N terminal). Sequence: SRQTATALPTGTSKC Database link: **Q8IUQ4** (Peptide available as **ab22876**) Run BLAST with Run BLAST with
Positive control	WB: Rat liver lysate, human liver lysate. ICC/IF- U2OS cells and HepG2 cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.05% Tris, 0.5% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity

chromatography using the immunizing peptide.

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab2237 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	Use a concentration of 1 - 3 µg/ml. Predicted molecular weight: 31 kDa. 1 hour primary incubation at room temperature is recommended for this product.
ICC/IF		Use a concentration of 10 µg/ml.

Target

Function 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 (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. Confers constitutive instability to HIPK2 through proteasomal degradation. It is thereby involved in many cellular processes such as apoptosis, tumor suppression, cell cycle, axon guidance, transcription regulation, spermatogenesis and TNF-alpha signaling. Has some overlapping function with SIAH2. Induces apoptosis in cooperation with PEG3. Upon nitric oxid (NO) generation that follows apoptotic stimulation, interacts with S-nitrosylated GAPDH, mediating the translocation of GAPDH to the nucleus. GAPDH acts as a stabilizer of SIAH1, facilitating the degradation of nuclear proteins.

Tissue specificity Widely expressed at a low level. Down-regulated in advanced hepatocellular carcinomas.

Pathway Protein modification; protein ubiquitination.

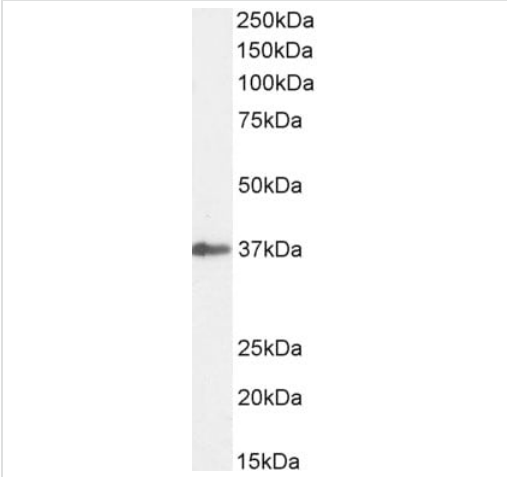
Sequence similarities Belongs to the SINA (Seven in absentia) family.
Contains 1 RING-type zinc finger.
Contains 1 SIAH-type zinc finger.

Domain The RING-type zinc finger domain is essential for ubiquitin ligase activity.
The SBD domain (substrate-binding domain) mediates the homodimerization and the interaction with substrate proteins. It is related to the TRAF family.

Post-translational modifications Phosphorylated on Ser-19 by ATM and ATR. This phosphorylation disrupts SIAH1 interaction with HIPK2, and subsequent proteasomal degradation of HIPK2.

Cellular localization Cytoplasm. Nucleus. Predominantly cytoplasmic. Partially nuclear.

Images



Western blot - Anti-SIAH1 antibody (ab2237)

Anti-SIAH1 antibody (ab2237) at 1 mg/ml + Human liver lysate at 35 µg

Predicted band size: 31 kDa
Observed band size: 37 kDa

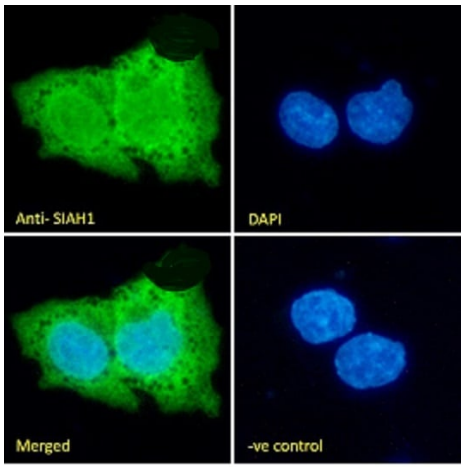
Primary incubation 1 hour at room temperature. Detected by chemiluminescence. RIPA buffer was used.

Western blot - Anti-SIAH1 antibody (ab2237)

Anti-SIAH1 antibody (ab2237) at 1 µg/ml + Rat liver lysate at 35 µg

Predicted band size: 31 kDa
Observed band size: 30, 37 kDa

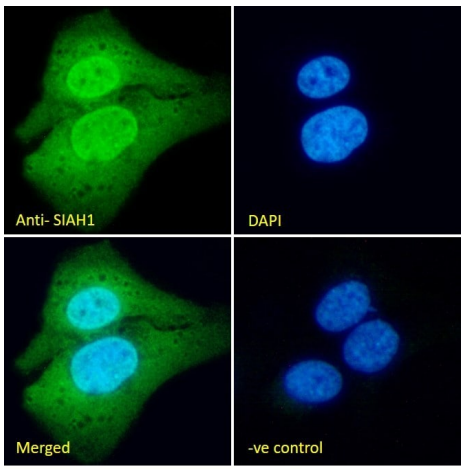
Primary incubation 1 hour at room temperature. Detected by chemiluminescence. RIPA buffer was used.



Immunocytochemistry/ Immunofluorescence - Anti-SIAH1 antibody (ab2237)

Immunofluorescence analysis of paraformaldehyde fixed, 0.15% Triton permeabilized HepG2 (human liver hepatocellular carcinoma cell) cells labelling SIAH1 with primary anti-SIAH1 antibody (ab2237) at 10ug/ml for 1 hour, followed by Alexa Fluor 488 secondary antibody at 2ug/ml. Image showing nuclear and cytoplasmic staining. The nuclear counterstain is DAPI (blue).

Negative control: Unimmunized goat IgG at 10ug/ml followed by Alexa Fluor 488 secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-SIAH1 antibody (ab2237)

Immunofluorescence analysis of paraformaldehyde fixed, 0.15% Triton permeabilized U2OS (human bone osteosarcoma epithelial cell) cells labelling SIAH1 with primary anti-SIAH1 antibody (ab2237) at 10ug/ml for 1 hour, followed by Alexa Fluor 488 secondary antibody at 2ug/ml. Image showing nuclear and cytoplasmic staining. The nuclear counterstain is DAPI (blue).

Negative control: Unimmunized goat IgG at 10ug/ml followed by Alexa Fluor 488 secondary antibody.

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