abcam

ab317368

Anti-Fbxw7 antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol (glycerin, glycerine), 20% TBS, 1X, 1% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human FBXW7 conjugated to Keyhole Limpet Haemocyanin. Database link Q969H0
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/200
Notes	-

Expected

Species	Rat, Mouse

Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/50 - 1/200
Notes	-

Expected

Species	Human, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Expected

Species	Human, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information FBXW7

Function	Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:17434132,

PubMed:22748924, PubMed:26976582, PubMed:28727686, PubMed:34741373, PubMed:35395208). Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter brings them to the SCF complex for ubiquitination (PubMed:17434132, PubMed:22748924, PubMed:26774286, PubMed:26976582, PubMed:28727686, PubMed:34741373). Identified substrates include cyclin-E (CCNE1 or CCNE2), DISC1, JUN, MYC, NOTCH1 released notch intracellular domain (NICD), NFE2L1, NOTCH2, MCL1, MLST8, RICTOR, and probably PSEN1 (PubMed:11565034, PubMed:11585921, PubMed:12354302, PubMed:14739463, PubMed:15103331, PubMed:17558397, PubMed:17873522, PubMed:22608923, PubMed:22748924, PubMed:25775507, PubMed:25897075, PubMed:26976582, PubMed:28007894, PubMed:28727686, PubMed:29149593, PubMed:34102342). Acts as a negative regulator of JNK signaling by binding to phosphorylated JUN and promoting its ubiquitination and subsequent degradation (PubMed:14739463). Involved in bone homeostasis and negative regulation of osteoclast differentiation (PubMed:29149593). Regulates the amplitude of the cyclic expression of hepatic core clock genes and genes involved in lipid and glucose metabolism via ubiquitination and proteasomal degradation of their transcriptional repressor NR1D1; CDK1-dependent phosphorylation of NR1D1 is necessary for SCF(FBXW7)-mediated ubiquitination (PubMed:27238018). Also able to promote 'Lys-63'-linked ubiquitination in response to DNA damage (PubMed:26774286). The SCF(FBXW7) complex facilitates double-strand break repair following phosphorylation by ATM: phosphorylation promotes localization to sites of double-strand breaks and 'Lys-63'-linked ubiquitination of phosphorylated XRCC4, enhancing DNA non-homologous end joining (PubMed:26774286).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

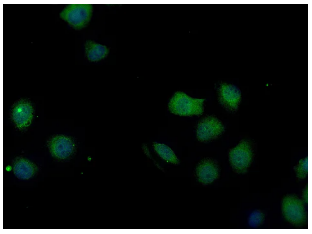
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

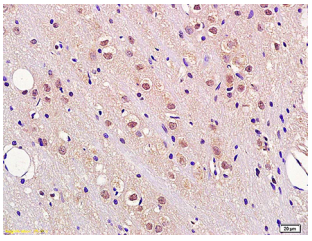
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3 product images



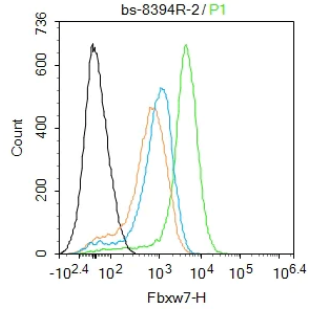
Immunocytochemistry/ Immunofluorescence - Anti-Fbxw7 Antibody (ab317368)

Immunocytochemistry/ Immunofluorescence analysis of 4% Paraformaldehyde-fixed, Triton X-100 permeabilized HepG2 cells staining Fbxw7 using ab317368 at a 1:100 dilution, for 90 minutes at 37°C, followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes. DAPI (blue) was used to stain the cell nuclei. Blocking buffer (normal goat serum) at 37°C for 20 min.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fbxw7 Antibody (ab317368)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat brain tissue labeled with ab317368 at a 1:200 dilution followed by conjugation to the secondary antibody and DAB staining.



Flow Cytometry (Intracellular) - Anti-Fbxw7 Antibody (ab317368)

Mouse spleen cells were fixed with 4% PFA for 10min at room temperature, permeabilized with ice-cold methanol for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with ab317368 at 1:50 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.