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WAC Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9537C

Product Information

Application	WB, FC, E
Primary Accession	Q9BTA9
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24117
Calculated MW	70724
Antigen Region	284-313

Additional Information

Gene ID	51322
Other Names	WW domain-containing adapter protein with coiled-coil, WAC, KIAA1844
Target/Specificity	This WAC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 284-313 amino acids from the Central region of human WAC.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	WAC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	WAC
Synonyms	KIAA1844
Function	Acts as a linker between gene transcription and histone H2B monoubiquitination at 'Lys-120' (H2BK120ub1) (PubMed:21329877). Interacts

with the RNA polymerase II transcriptional machinery via its WW domain and with RNF20-RNF40 via its coiled coil region, thereby linking and regulating H2BK120ub1 and gene transcription (PubMed:21329877). Regulates the cell-cycle checkpoint activation in response to DNA damage (PubMed:21329877). Positive regulator of amino acid starvation-induced autophagy (PubMed:22354037). Also acts as a negative regulator of basal autophagy (PubMed:26812014). Positively regulates MTOR activity by promoting, in an energy-dependent manner, the assembly of the TTT complex composed of TELO2, TTI1 and TTI2 and the RUVBL complex composed of RUVBL1 and RUVBL2 into the TTT-RUVBL complex. This leads to the dimerization of the mTORC1 complex and its subsequent activation (PubMed:26812014). May negatively regulate the ubiquitin proteasome pathway (PubMed:21329877).

Cellular Location

Nucleus speckle {ECO:0000250|UniProtKB:Q924H7}. Nucleus. Note=In distinct nuclear speckles. Colocalizes with pre-mRNA processing complexes {ECO:0000250|UniProtKB:Q924H7}

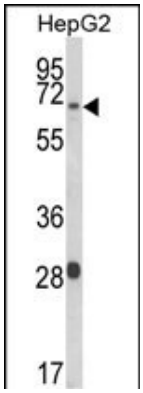
Background

WAC contains a WW domain, which is a protein module found in a wide range of signaling proteins. This domain mediates protein-protein interactions and binds proteins containing short linear peptide motifs that are proline-rich or contain at least one proline. This gene product shares 94% sequence identity with the WAC protein in mouse, however, its exact function is not known.

References

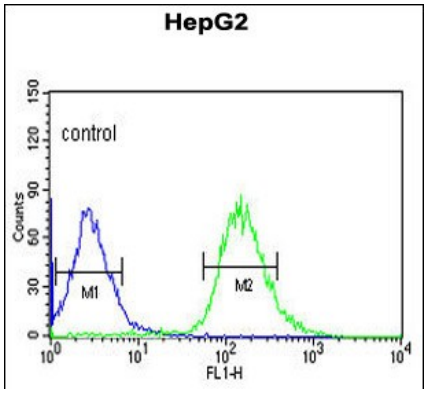
Olsen, J.V., et al. Cell 127(3):635-648(2006)
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Beausoleil, S.A., et al. Nat. Biotechnol. 24(10):1285-1292(2006)
Lim, J., et al. Cell 125(4):801-814(2006)
Deloukas, P., et al. Nature 429(6990):375-381(2004)

Images



Western blot analysis of WAC Antibody (Center) (Cat. #AP9537c) in HepG2 cell line lysates (35ug/lane). WAC(arrow) was detected using the purified Pab.

WAC Antibody (Center) (Cat. #AP9537c) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



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