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ARFBP1 Rabbit pAb

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Catalog # AP54869

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q7Z6Z7
Predicted	Rat, Pig, Dog, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	481891
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ARF6
Epitope Specificity	3201-3400/43741
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus. Mainly expressed in the cytoplasm of most tissues, except in the nucleus of spermatogonia, primary spermatocytes and neuronal cells (By similarity). Predominantly cytosolic or perinuclear in some colorectal carcinoma cells.
DISEASE	Defects in HUWE1 are the cause of mental retardation syndromic X-linked Turner type (MRXST) [MIM:300706]; also known as mental retardation and macrocephaly syndrome. MRXST shows clinical variability. Associated phenotypes include macrocephaly and variable contractures. A chromosomal microduplication involving HUWE1 and HSD17B10 is the cause of mental retardation X-linked type 17 (MRX17) [MIM:300705]; also known as mental retardation X-linked type 31 (MRX31). Mental retardation is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptative behavior and manifested during the developmental period. In contrast to syndromic or specific X-linked mental retardation which also present with associated physical, neurological and/or psychiatric manifestations, intellectual deficiency is the only primary symptom of non-syndromic X-linked mental retardation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	E3 ubiquitin-protein ligase which mediates ubiquitination and subsequent proteasomal degradation of target proteins. Regulates apoptosis by catalyzing the polyubiquitination and degradation of MCL1. Mediates monoubiquitination of DNA polymerase beta (POLB) at 'Lys-41', 'Lys-61' and 'Lys-81', thereby playing a role in base-excision repair. Also ubiquitinates the p53/TP53 tumor suppressor and core histones including H1, H2A, H2B, H3 and H4. Binds to an upstream initiator-like sequence in the preprodynorphin gene. Regulates neural differentiation and proliferation by catalyzing the polyubiquitination and degradation of MYCN. May regulate abundance of CDC6 after DNA damage by polyubiquitinating and targeting CDC6 to degradation.

Additional Information

Gene ID	10075
Other Names	E3 ubiquitin-protein ligase HUWE1, 2.3.2.26, ARF-binding protein 1, ARF-BP1, HECT, UBA and WWE domain-containing protein 1, HECT-type E3 ubiquitin transferase HUWE1, Homologous to E6AP carboxyl terminus homologous protein 9, HectH9, Large structure of UREB1, LASU1, Mcl-1 ubiquitin ligase E3, Mule, Upstream regulatory element-binding protein 1, URE-B1, URE-binding protein 1, HUWE1, KIAA0312, KIAA1578, UREB1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	HUWE1
Synonyms	KIAA0312, KIAA1578, UREB1
Function	E3 ubiquitin-protein ligase which mediates ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:15567145, PubMed:15767685, PubMed:15989957, PubMed:17567951, PubMed:18488021, PubMed:19037095, PubMed:19713937, PubMed:20534529, PubMed:30217973). Regulates apoptosis by catalyzing the polyubiquitination and degradation of MCL1 (PubMed:15989957). Mediates monoubiquitination of DNA polymerase beta (POLB) at 'Lys-41', 'Lys-61' and 'Lys-81', thereby playing a role in base-excision repair (PubMed:19713937). Also ubiquitinates the p53/TP53 tumor suppressor and core histones including H1, H2A, H2B, H3 and H4 (PubMed:15567145, PubMed:15767685, PubMed:15989956). Ubiquitinates MFN2 to negatively regulate mitochondrial fusion in response to decreased stearoylation of TFRC (PubMed:26214738). Ubiquitination of MFN2 also takes place following induction of mitophagy; AMBRA1 acts as a cofactor for HUWE1-mediated ubiquitination (PubMed:30217973). Regulates neural differentiation and proliferation by catalyzing the polyubiquitination and degradation of MYCN (PubMed:18488021). May regulate abundance of CDC6 after DNA damage by polyubiquitinating and targeting CDC6 to degradation (PubMed:17567951). Mediates polyubiquitination of isoform 2 of PA2G4 (PubMed:19037095). Acts in concert with MYCBP2 to regulate the circadian clock gene expression by promoting the lithium-induced ubiquitination and degradation of NR1D1 (PubMed:20534529). Binds to an upstream initiator-like sequence in the preprodynorphin gene (By similarity). Mediates HAPSTR1 degradation, but is also a required cofactor in the pathway by which HAPSTR1 governs stress signaling (PubMed:35776542). Acts as a regulator of the JNK and NF-kappa-B signaling pathways by mediating assembly of heterotypic 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains that are then recognized by TAB2: HUWE1 mediates branching of 'Lys-48'-linked chains of substrates initially modified with 'Lys-63'-linked conjugates by TRAF6 (PubMed:27746020). 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains protect 'Lys-63'-linkages from CYLD deubiquitination (PubMed:27746020). Ubiquitinates PPARA in hepatocytes (By similarity).

Cellular Location	Cytoplasm. Nucleus. Mitochondrion. Note=Mainly expressed in the cytoplasm of most tissues, except in the nucleus of spermatogonia, primary spermatocytes and neuronal cells (By similarity). Recruited to mitochondria following interaction with AMBRA1 (PubMed:30217973) {ECO:0000250|UniProtKB:Q7TMY8, ECO:0000269|PubMed:30217973}
Tissue Location	Weakly expressed in heart, brain and placenta but not in other tissues. Expressed in a number of cell lines, predominantly in those from colorectal carcinomas

Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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