

**ARF-BP1 Antibody**  
Catalog # ASC10538**Specification****ARF-BP1 Antibody - Product Information**

Application	WB, ICC, IF
Primary Accession	<a href="#">Q7Z6Z7</a>
Other Accession	<a href="#">NP_113584</a> , <a href="#">61676188</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	ARF-BP1 antibody can be used for detection of ARF-BP1 by Western blot at 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.

**ARF-BP1 Antibody - Additional Information**

Gene ID 10075

**Other Names**

ARF-BP1 Antibody: MULE, Ib772, LASU1, UREB1, HECTH9, URE-B1, ARF-BP1, HSPC272, KIAA0312, KIAA1578, E3 ubiquitin-protein ligase HUWE1, ARF-binding protein 1, HECT, UBA and WWE domain containing 1

**Target/Specificity**

HUWE1;

**Reconstitution & Storage**

ARF-BP1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

ARF-BP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ARF-BP1 Antibody - Protein Information**

Name HUWE1

Synonyms KIAA0312, KIAA1578, UREB1

**Function**E3 ubiquitin-protein ligase which mediates ubiquitination and subsequent proteasomal degradation of target proteins (PubMed: <http://www.uniprot.org/citations/15567145> target="\_blank">15567145</a>, PubMed: <http://www.uniprot.org/citations/15767685> target="\_blank">15767685</a>, PubMed: <http://www.uniprot.org/citations/15989957>

target="\_blank">15989957</a>, PubMed:<a href="http://www.uniprot.org/citations/17567951" target="\_blank">17567951</a>, PubMed:<a href="http://www.uniprot.org/citations/18488021" target="\_blank">18488021</a>, PubMed:<a href="http://www.uniprot.org/citations/19037095" target="\_blank">19037095</a>, PubMed:<a href="http://www.uniprot.org/citations/19713937" target="\_blank">19713937</a>, PubMed:<a href="http://www.uniprot.org/citations/20534529" target="\_blank">20534529</a>, PubMed:<a href="http://www.uniprot.org/citations/30217973" target="\_blank">30217973</a>). Regulates apoptosis by catalyzing the polyubiquitination and degradation of MCL1 (PubMed:<a href="http://www.uniprot.org/citations/15989957" target="\_blank">15989957</a>). Mediates monoubiquitination of DNA polymerase beta (POLB) at 'Lys-41', 'Lys-61' and 'Lys-81', thereby playing a role in base-excision repair (PubMed:<a href="http://www.uniprot.org/citations/19713937" target="\_blank">19713937</a>). Also ubiquitinates the p53/TP53 tumor suppressor and core histones including H1, H2A, H2B, H3 and H4 (PubMed:<a href="http://www.uniprot.org/citations/15567145" target="\_blank">15567145</a>, PubMed:<a href="http://www.uniprot.org/citations/15767685" target="\_blank">15767685</a>, PubMed:<a href="http://www.uniprot.org/citations/15989956" target="\_blank">15989956</a>). Ubiquitinates MFN2 to negatively regulate mitochondrial fusion in response to decreased stearylation of TFRC (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). Ubiquitination of MFN2 also takes place following induction of mitophagy; AMBRA1 acts as a cofactor for HUWE1-mediated ubiquitination (PubMed:<a href="http://www.uniprot.org/citations/30217973" target="\_blank">30217973</a>). Regulates neural differentiation and proliferation by catalyzing the polyubiquitination and degradation of MYCN (PubMed:<a href="http://www.uniprot.org/citations/18488021" target="\_blank">18488021</a>). May regulate abundance of CDC6 after DNA damage by polyubiquitinating and targeting CDC6 to degradation (PubMed:<a href="http://www.uniprot.org/citations/17567951" target="\_blank">17567951</a>). Mediates polyubiquitination of isoform 2 of PA2G4 (PubMed:<a href="http://www.uniprot.org/citations/19037095" target="\_blank">19037095</a>). Acts in concert with MYCBP2 to regulate the circadian clock gene expression by promoting the lithium-induced ubiquitination and degradation of NR1D1 (PubMed:<a href="http://www.uniprot.org/citations/20534529" target="\_blank">20534529</a>). 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:<a href="http://www.uniprot.org/citations/35776542" target="\_blank">35776542</a>). 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:<a href="http://www.uniprot.org/citations/27746020" target="\_blank">27746020</a>). 'Lys-63'-'Lys-48'-linked branched ubiquitin chains protect 'Lys-63'-linkages from CYLD deubiquitination (PubMed:<a href="http://www.uniprot.org/citations/27746020" target="\_blank">27746020</a>). 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

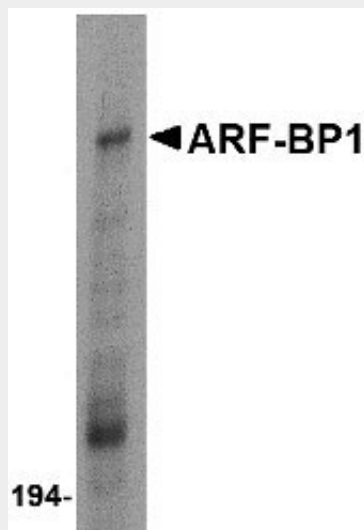
Weakly expressed in heart, brain and placenta but not in other tissues. Expressed in a number of cell lines, predominantly in those from colorectal carcinomas

## ARF-BP1 Antibody - Protocols

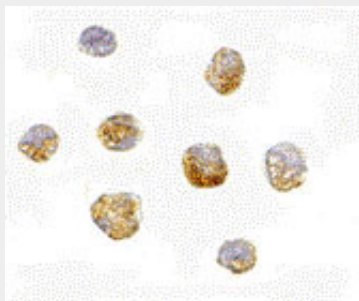
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

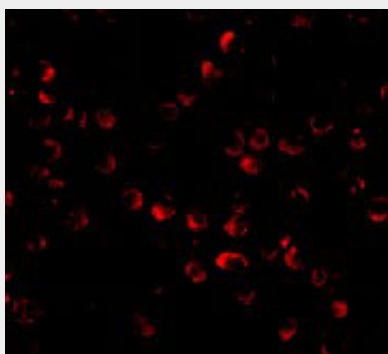
#### ARF-BP1 Antibody - Images



Western blot analysis of ARF-BP1 in Daudi cell lysate with ARF-BP1 antibody at 1 µg/mL.



Immunocytochemistry of ARF-BP1 in Daudi cells with ARF-BP1 antibody at 5 µg/mL.



Immunofluorescence of ARF-BP1 in Daudi cells with ARF-BP1 antibody at 20 µg/mL.

#### ARF-BP1 Antibody - Background

ARF-BP1 Antibody: The ARF tumor suppressor is a critical regulator of p53 stability. In addition to p53, ARF1 binds to other proteins such as MDM2 and ARF-BP1, a large protein containing HECT, UBA and WWE motifs. ARF-BP1 directly binds and ubiquitinates p53; this activity is inhibited by ARF, indicating that ARF-BP1 is a critical mediator of the p53-dependent and p53-independent tumor suppressor functions of ARF. ARF-BP1 can also catalyze the polyubiquitination of Mcl-1, an anti-apoptotic Bcl-2 family member involved in DNA damage-induced apoptosis. Elimination of ARF-BP1 expression by RNA interference stabilized Mcl-1 protein, resulting in an attenuation of apoptosis induced by DNA-damage agents.

#### **ARF-BP1 Antibody - References**

Gallagher SJ, Kefford RF and Rizos H. The ARF tumour suppressor. *Int. J. Biochem. Cell Biol.*2006; 38:1637-41.

Pomerantz J, Schreiber-Agus N, Leigeois NJ, et al. The Ink4a tumor suppressor gene product, p19ARF interacts with MDM2 and neutralizes MDM2's inhibition of p53. *Cell*1998; 92:725-34.

Chen D, Kon N, Li M, et al. ARF-BP1/Mule is a critical mediator of the ARF tumor suppressor. *Cell*2005; 121:1071-83.

Zhong Q, Gao W, Du F, et al. Mule/ARF-BP1, a BH3-only E3 ubiquitin ligase, catalyzes the polyubiquitination of Mcl-1 and regulates apoptosis. *Cell*2005; 121:1085-95.