

#### **UBR2 Antibody (Internal)**

Goat Polyclonal Antibody Catalog # ALS16594

### **Specification**

### **UBR2 Antibody (Internal) - Product Information**

Application IHC-P, E
Primary Accession O8IWV8
Other Accession 23304

Reactivity Human, Mouse, Rat, Rabbit, Hamster,

Monkey, Pig, Chicken, Bovine, Horse, Dog

Host
Clonality
Polyclonal
Calculated MW
Dilution
Polyclonal
1HC-P~~N/A
E~~N/A

# **UBR2 Antibody (Internal) - Additional Information**

**Gene ID 23304** 

**Other Names** 

UBR2, BA49A4.1, C6orf133, DJ392M17.3, DJ242G1.1, N-recognin-2, KIAA0349, RP3-392M17.3

Target/Specificity

Human UBR2.

#### **Reconstitution & Storage**

Tris-buffered saline, pH 7.3, 0.5% BSA, 0.02% sodium azide. Store at -20°C. Minimize freezing and thawing.

### **Precautions**

UBR2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

### **UBR2 Antibody (Internal) - Protein Information**

Name UBR2

Synonyms C6orf133, KIAA0349

# **Function**

E3 ubiquitin-protein ligase which is a component of the N-end rule pathway (PubMed:<a href="http://www.uniprot.org/citations/15548684" target="\_blank">15548684</a>, PubMed:<a href="http://www.uniprot.org/citations/20835242" target="\_blank">20835242</a>, PubMed:<a href="http://www.uniprot.org/citations/28392261" target="\_blank">28392261</a>). Recognizes and binds to proteins bearing specific N-terminal residues (N-degrons) that are destabilizing according to the N-end rule, leading to their ubiquitination and subsequent degradation



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(PubMed:<a href="http://www.uniprot.org/citations/20835242" target=" blank">20835242</a>, PubMed: <a href="http://www.uniprot.org/citations/28392261" target=" blank">28392261</a>). Recognizes both type-1 and type-2 N-degrons, containing positively charged amino acids (Arg, Lys and His) and bulky and hydrophobic amino acids, respectively (PubMed: <a href="http://www.uniprot.org/citations/20835242" target=" blank">20835242</a>, PubMed:<a href="http://www.uniprot.org/citations/28392261" target=" blank">28392261</a>). Does not ubiquitinate proteins that are acetylated at the N-terminus (PubMed:<a href="http://www.uniprot.org/citations/20835242" target="\_blank">20835242</a>). In contrast, it strongly binds methylated N-degrons (PubMed:<a href="http://www.uniprot.org/citations/28392261" target="\_blank">28392261</a>). Plays a critical role in chromatin inactivation and chromosome-wide transcriptional silencing during meiosis via ubiquitination of histone H2A (By similarity). Binds leucine and is a negative regulator of the leucine-mTOR signaling pathway, thereby controlling cell growth (PubMed: <a href="http://www.uniprot.org/citations/20298436" target=" blank">20298436</a>). Required for spermatogenesis, promotes, with Tex19.1, SPO11-dependent recombination foci to accumulate and drive robust homologous chromosome synapsis (By similarity). Polyubiquitinates LINE-1 retrotransposon encoded, LIRE1, which induces degradation, inhibiting LINE-1 retrotransposon mobilization (By similarity). Catalyzes ubiquitination and degradation of the N-terminal part of NLRP1 following NLRP1 activation by pathogens and other damage-associated signals: ubiquitination promotes degradation of the N-terminal part and subsequent release of the cleaved C-terminal part of NLRP1, which polymerizes and forms the NLRP1 inflammasome followed by host cell pyroptosis (By similarity). Plays a role in T-cell receptor signaling by inducing 'Lys-63'-linked ubiquitination of lymphocyte cell-specific kinase LCK (PubMed: <a href="http://www.uniprot.org/citations/38225265" target=" blank">38225265</a>). This activity is regulated by DUSP22, which induces 'Lys-48'-linked ubiquitination of UBR2, leading to its proteasomal degradation by SCF E3 ubiquitin-protein ligase complex (PubMed: <a href="http://www.uniprot.org/citations/38225265" target=" blank">38225265</a>).

#### **Cellular Location**

Nucleus {ECO:0000250|UniProtKB:Q6WKZ8}. Chromosome {ECO:0000250|UniProtKB:Q6WKZ8}. Note=Associated with chromatin during meiosis. {ECO:0000250|UniProtKB:Q6WKZ8}

# **Tissue Location**

Broadly expressed, with highest levels in skeletal muscle, kidney and pancreas. Present in acinar cells of the pancreas (at protein level).

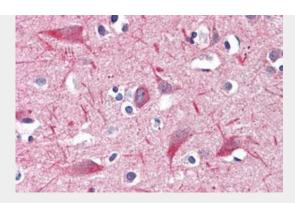
### **UBR2 Antibody (Internal) - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

#### **UBR2 Antibody (Internal) - Images**





Anti-UBR2 antibody IHC staining of human brain, cortex.

# **UBR2 Antibody (Internal) - Background**

E3 ubiquitin-protein ligase which is a component of the N-end rule pathway. Recognizes and binds to proteins bearing specific N-terminal residues that are destabilizing according to the N-end rule, leading to their ubiquitination and subsequent degradation. Plays a critical role in chromatin inactivation and chromosome-wide transcriptional silencing during meiosis via ubiquitination of histone H2A. Binds leucine and is a negative regulator of the leucine-mTOR signaling pathway, thereby controlling cell growth.

# **UBR2 Antibody (Internal) - References**

Kwak K.S., et al. Cancer Res. 64:8193-8198(2004). Ota T., et al. Nat. Genet. 36:40-45(2004). Mungall A.J., et al. Nature 425:805-811(2003). Nagase T., et al. DNA Res. 4:141-150(1997). Yin J., et al. Hum. Mol. Genet. 13:2421-2430(2004).