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# Ubiquitin Protein Ligase E3A Rabbit mAb

Catalog # AP76758

### **Product Information**

**Application** WB, IP, ICC **Primary Accession** 005086

Reactivity Human, Mouse, Rat

**Host** Rabbi

**Clonality** Monoclonal Antibody

Calculated MW 100688

#### **Additional Information**

**Gene ID** 7337

Other Names UBE3A

**Dilution** WB~~1/500-1/1000 IP~~1/20 ICC~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

**Storage** Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

## **Protein Information**

Name UBE3A ( HGNC:12496)

**Function** E3 ubiquitin-protein ligase which accepts ubiquitin from an E2

ubiquitin-conjugating enzyme in the form of a thioester and transfers it to its

substrates (PubMed: <u>10373495</u>, PubMed: <u>16772533</u>, PubMed: <u>19204938</u>,

PubMed: <u>19233847</u>, PubMed: <u>19325566</u>, PubMed: <u>19591933</u>, PubMed: <u>22645313</u>, PubMed: <u>24273172</u>, PubMed: <u>24728990</u>,

PubMed:30020076). Several substrates have been identified including the BMAL1, ARC, LAMTOR1, RAD23A and RAD23B, MCM7 (which is involved in DNA replication), annexin A1, the PML tumor suppressor, and the cell cycle

regulator CDKN1B (PubMed:<u>10373495</u>, PubMed:<u>19204938</u>, PubMed:<u>19325566</u>, PubMed:<u>19591933</u>, PubMed:<u>22645313</u>,

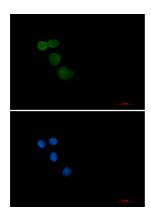
PubMed: 24728990, PubMed: 30020076). Additionally, may function as a cellular quality control ubiquitin ligase by helping the degradation of the cytoplasmic misfolded proteins (PubMed: 19233847). Finally, UBE3A also promotes its own degradation in vivo. Plays an important role in the regulation of the circadian clock: involved in the ubiquitination of the core clock component BMAL1, leading to its proteasomal degradation (PubMed: 24728990). Acts as transcriptional coactivator of progesterone receptor PGR upon progesterone hormone activation (PubMed: 16772533).

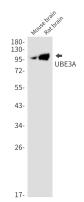
Acts as a regulator of synaptic development by mediating ubiquitination and degradation of ARC (By similarity). Required for synaptic remodeling in neurons by mediating ubiquitination and degradation of LAMTOR1, thereby limiting mTORC1 signaling and activity-dependent synaptic remodeling (By similarity). Synergizes with WBP2 in enhancing PGR activity (PubMed:16772533).

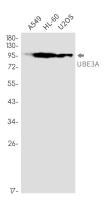
#### **Cellular Location**

Cytoplasm {ECO:0000250 | UniProtKB:O08759}. Nucleus {ECO:0000250 | UniProtKB:O08759}

# **Images**







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