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# anti-UBA3 antibody (N-Term)





#### Overview

| Overview             |  |
|----------------------|--|
| Quantity:            | 100 μL   |
| Target:              | UBA3   |
| Binding Specificity: | N-Term   |
| Reactivity:          | Human, Mouse, Rat, Zebrafish (Danio rerio), Cow, Dog, Pig, Rabbit, Horse |
| Host:                | Rabbit   |
| Clonality:           | Polyclonal   |
| Application:         | Western Blotting (WB), Immunohistochemistry (IHC)                        |
| Product Details      |  |
|                      |  |

| Immunogen:            | The immunogen is a synthetic peptide directed towards the N terminal region of human UBA3                                      |
|-----------------------|--|
| Sequence:             | EGRWNHVKKF LERSGPFTHP DFEPSTESLQ FLLDTCKVLV IGAGGLGCEL   |
| Predicted Reactivity: | Cow: 100%, Dog: 100%, Horse: 100%, Human: 100%, Mouse: 100%, Pig: 100%, Rabbit: 100%, Rat: 100%, Zebrafish: 86%                |
| Characteristics:      | This is a rabbit polyclonal antibody against UBA3. It was validated on Western Blot using a cell lysate as a positive control. |
| Purification:         | Affinity Purified  |

# **Target Details**

| Target:           | UBA3                 |
|-------------------|----------------------|
| Alternative Name: | UBA3 (UBA3 Products) |

| Background: |
|-------------|
|-------------|

UBA3 is a catalytic subunit of the dimeric UBA3-NAE1 E1 enzyme. E1 activates NEDD8 by first adenylating its C-terminal glycine residue with ATP, thereafter linking this residue to the side chain of the catalytic cysteine, yielding a NEDD8-UBA3 thioester and free AMP. E1 finally transfers NEDD8 to the catalytic cysteine of UBE2M. UBA3 down-regulates steroid receptor activity. UBA3 is necessary for cell cycle progression. The modification of proteins with ubiquitin is an important cellular mechanism for targeting abnormal or short-lived proteins for degradation. Ubiquitination involves at least three classes of enzymes: ubiquitin-activating enzymes, or E1s, ubiquitin-conjugating enzymes, or E2s, and ubiquitin-protein ligases, or E3s. This gene encodes a member of the E1 ubiquitin-activating enzyme family. The encoded enzyme associates with AppBp1, an amyloid beta precursor protein binding protein, to form a heterodimer, and then the enzyme complex activates NEDD8, a ubiquitin-like protein, which regulates cell division, signaling and embryogenesis. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

Alias Symbols: DKFZp566J164, MGC22384, UBE1C, hUBA3

Protein Interaction Partner: UBA3, UBC, IMPA2, CPNE2, NEDD8, CAMK1D, NSFL1C, DCPS, KDM1A, PAPSS1, NAE1, XPO1, PCYT2, CAPN2, AHCY, ACAT2, NT5DC1, NUDCD2, TXNDC17, WDR61, UFC1, DSTN, VCL, UBE2H, PRDX2, TWF1, UBE2M, UIMC1, CHD3,

Protein Size: 463

| Molecular Weight: | 52 kDa               |
|-------------------|----------------------|
| Gene ID:          | 9039                 |
| NCBI Accession:   | NM_003968, NP_003959 |
| UniProt:          | Q8TBC4               |

#### **Application Details**

| Application Notes: | Optimal working dilutions should be determined experimentally by the investigator. |
|--------------------|--|
| Comment:           | Antigen size: 463 AA   |
| Restrictions:      | For Research Use only  |

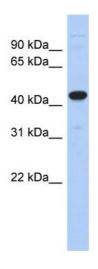
#### Handling

| Format:        | Liquid   |
|----------------|--|
| Concentration: | Lot specific   |
| Buffer:        | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % |

#### Handling

|                    | sucrose.  |
|--------------------|---|
| Preservative:      | Sodium azide  |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.                  |
| Handling Advice:   | Avoid repeated freeze-thaw cycles.  |
| Storage:           | -20 °C  |
| Storage Comment:   | For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles. |

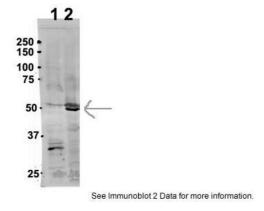
### **Images**



#### **Western Blotting**

**Image 1.** WB Suggested Anti-UBA3 Antibody Titration: 0.2-1 ug/ml ELISA Titer: 1:1562500 Positive Control: Human Pancreas

# Uba3



## **Western Blotting**

Image 2. Sample Type: 1. Human NT-2 cells (60ug)

2. mouse brain extracts (80ug)

**Primary Antibody Dilution:** 2ug/ml

Secondary Antibody: IRDye 800CW goat anti-rabbit from Li-

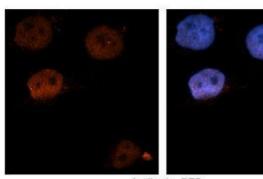
**COR Bioscience** 

**Secondary Antibody Dilution:** 1: 20,000

Image Submitted by: Yuzhi Chen

University of Arkansas for Medical Science

#### **UBA3**



Antibody--RED DAPI--Blue

See IHC 1 Data and Customer Feedback for more information

#### **Immunohistochemistry**

Image 3. Sample Type: Human brain stem cells Primary Antibody Dilution: 1:500 Secondary Antibody: Goat antirabbit Alexa-Fluor 594 Secondary Antibody Dilution: 1:1000 Color/Signal Descriptions: UBA3: Red DAPI:Blue Gene Name: UBA3 Submitted by: Dr. Yuzhi Chen, University of Arkansas for Medical Science