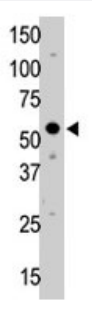
UBA3 polyclonal antibody

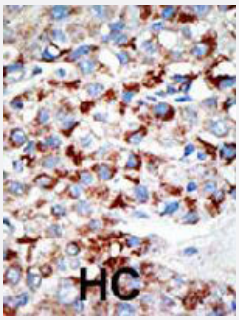
Catalog # PAB1774 Size 400 uL

Applications



Western Blot (Tissue lysate)

The UBA3 polyclonal antibody (Cat # PAB1774) is used in Western blot to detect UBA3 in mouse brain tissue lysate.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma tissue reacted with UBA3 polyclonal antibody (Cat # PAB1774) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. HC = hepatocarcinoma.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of UBA3.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to C-terminus of human UBA3.
Host	Rabbit
Reactivity	Human, Mouse
Form	Liquid
Purification	Protein G purification

Recommend Usage	Western Blot (1:1000) Immunohistochemistry (1:50-100) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

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Gene Info — UBA3

Entrez GeneID	9039
Protein Accession#	NP_003959;Q8TBC4
Gene Name	UBA3
Gene Alias	DKFZp566J164, MGC22384, UBE1C, hUBA3
Gene Description	ubiquitin-like modifier activating enzyme 3
Omim ID	603172
Gene Ontology	Hyperlink
Gene Summary	The modification of proteins with ubiquitin is an important cellular mechanism for targeting abnor mal or short-lived proteins for degradation. Ubiquitination involves at least three classes of enzym es: ubiquitin-activating enzymes, or E1s, ubiquitin-conjugating enzymes, or E2s, and ubiquitin-prot ein ligases, or E3s. This gene encodes a member of the E1 ubiquitin-activating enzyme family. Th e encoded enzyme associates with AppBp1, an amyloid beta precursor protein binding protein, t o form a heterodimer, and then the enzyme complex activates NEDD8, a ubiquitin-like protein, wh ich regulates cell division, signaling and embryogenesis. Multiple alternatively spliced transcript v ariants encoding distinct isoforms have been found for this gene. [provided by RefSeq

Other Designations	Nedd8-activating enzyme hUba3|UBA3, ubiquitin-activating enzyme E1 homolog|ubiquitin-activating enzyme 3|ubiquitin-activating enzyme E1C (UBA3 homolog, yeast)|ubiquitin-activating enzyme E1C (homologous to yeast UBA3)

Publication Reference

- Itch promotes the neddylation of JunB and regulates JunB-dependent transcription.

  Haiwei Lia, Heng Zhud, Yang Liue, Fuchu Hea, Ping Xiea, Lingqiang Zhang.

  Cellular Signalling 2016 Sep; 28(9):1186.

  Application: WB-Tr, Human, HCT116 cells

- The covalent modifier Nedd8 is critical for the activation of Smurf1 ubiquitin ligase in tumorigenesis.

  Xie P, Zhang M, He S, Lu K, Chen Y, Xing G, Lu Y, Liu P, Li Y, Wang S, Chai N, Wu J, Deng H, Wang HR, Cao Y, Zhao F, Cui Y, Wang J, He F, Zhang L.

  Nature Communications 2014 May; 5:3733.

  Application: WB-Tr, Human, HCT116 cells

- Conservation in the mechanism of Nedd8 activation by the human AppBp1-Uba3 heterodimer.

  Bohnsack RN, Haas AL.

  The Journal of Biological Chemistry 2003 Jul; 278(29):26823.

- Insights into the ubiquitin transfer cascade from the structure of the activating enzyme for NEDD8.

  Walden H, Podgorski MS, Schulman BA.

  Nature 2003 Mar; 422(6929):330.

- Identification of the activating and conjugating enzymes of the NEDD8 conjugation pathway.

  Gong L, Yeh ET.

  The Journal of Biological Chemistry 1999 Apr; 274(17):12036.

Pathway

- Ubiquitin mediated proteolysis