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UBA6 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16886b

Product Information

Application	WB, E
Primary Accession	A0AVT1
Other Accession	Q8C7R4, NP_060697.4
Reactivity	Human, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB30386
Calculated MW	117970
Antigen Region	861-889

Additional Information

Gene ID	55236
Other Names	Ubiquitin-like modifier-activating enzyme 6, Ubiquitin-activating enzyme 6, Monocyte protein 4, MOP-4, Ubiquitin-activating enzyme E1-like protein 2, E1-L2, UBA6, MOP4, UBE1L2
Target/Specificity	This UBA6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 861-889 amino acids from the C-terminal region of human UBA6.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	UBA6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UBA6
Synonyms	MOP4, UBE1L2

Function	Activates ubiquitin by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding a ubiquitin-E1 thioester and free AMP (PubMed:35970836, PubMed:35986001). Specific for ubiquitin, does not activate ubiquitin-like peptides. Also activates UBD/FAT10 conjugation via adenylation of its C-terminal glycine (PubMed:17889673, PubMed:35970836, PubMed:35986001). Differs from UBE1 in its specificity for substrate E2 charging. Does not charge cell cycle E2s, such as CDC34. Essential for embryonic development. Isoform 2 may play a key role in ubiquitin system and may influence spermatogenesis and male fertility.
Tissue Location	Widely expressed. Isoform 2 is predominantly expressed in testis with higher expression in adult testis than in fetal testis.

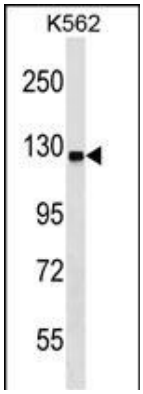
Background

Modification of proteins with ubiquitin (UBB; MIM 191339) or ubiquitin-like proteins controls many signaling networks and requires a ubiquitin-activating enzyme (E1), a ubiquitin conjugating enzyme (E2), and a ubiquitin protein ligase (E3). UBE1L2 is an E1 enzyme that initiates the activation and conjugation of ubiquitin-like proteins (Jin et al., 2007 [PubMed 17597759]).

References

Groettrup, M., et al. Trends Biochem. Sci. 33(5):230-237(2008)
Chiu, Y.H., et al. Mol. Cell 27(6):1014-1023(2007)
Pelzer, C., et al. J. Biol. Chem. 282(32):23010-23014(2007)
Jin, J., et al. Nature 447(7148):1135-1138(2007)
Hillier, L.W., et al. Nature 434(7034):724-731(2005)

Images



UBA6 Antibody (C-term) (Cat. #AP16886b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the UBA6 antibody detected the UBA6 protein (arrow).

Citations

- The non-canonical ubiquitin activating enzyme UBA6 suppresses epithelial-mesenchymal transition of mammary epithelial cells.