

Rabbit K0776 Polyclonal Antibody | anti-UFL1 antibody

K0776 Antibody (Center)

CATALOG # AAA283652	HOST Rabbit	REACTIVITY Human Predicted Reactivity: Rat	APPLICATIONS ELISA, Western Blot
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PRODUCT SYNONYMS

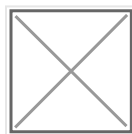
K0776; Polyclonal Antibody; K0776 Antibody (Center); E3 UFM1-protein ligase 1; 632-; LZAP-binding protein; UFL1; KIAA0776; NLBP; anti-UFL1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human Predicted Reactivity: Rat
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This K0776 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 426-455 amino acids from the Central region of human K0776.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/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.
Sequence Positions	426-455
Sequence Length	794
Applicable Applications for anti-UFL1 antibody	ELISA, WB (Western Blot)
Function	E3 protein ligase that mediates ufmylation, the covalent attachment of the ubiquitin-like modifier UFM1 to lysine residues on target proteins, and which plays a key role in reticulophagy (also called ER-phagy) induced in response to endoplasmic reticulum stress (PubMed: 20018847 , PubMed: , PubMed: , PubMed: , PubMed:). In response to endoplasmic reticulum stress, recruited to the endoplasmic reticulum membrane by DDRGK1, and mediates ufmylation of proteins such as RPN1 and RPL26/uL24, thereby promoting reticulophagy of endoplasmic reticulum sheets (PubMed:).Ufmylation-dependent reticulophagy inhibits the unfolded protein response (UPR) via ERN1/IRE1-alpha (PubMed: , PubMed: http://www.uniprot.org/citations/32160526 >32160526). Ufmylation in response to endoplasmic reticulum stress is essential for processes such as hematopoiesis, blood vessel morphogenesis or inflammatory response (PubMed:). Regulates inflammation in response to endoplasmic reticulum stress by promoting reticulophagy, leading to inhibit the activity of the NF-kappa-B transcription factor (By similarity). Mediates ufmylation of DDRGK1 and CDK5RAP3; the role of these modifications is however unclear: as both DDRGK1 and CDK5RAP3 act as substrate adapters for ufmylation, it is uncertain whether ufmylation of these proteins is a collateral effect or is required for ufmylation (PubMed: , PubMed:). Catalyzes ufmylation of various subunits of the ribosomal complex or associated components, such as RPS3/uS3, RPS20/uS10, RPL10/uL16, RPL26/uL24 and EIF6 (By similarity). Anchors CDK5RAP3 in the cytoplasm, preventing its translocation to the nucleus which allows expression of the CCND1 cyclin and progression of cells through the G1/S transition (PubMed: 20531390). Also involved in the response to DNA damage: recruited to double-strand break sites following DNA damage and mediates monoufmylation of histone H4 (PubMed:). Catalyzes ufmylation of TRIP4, thereby playing a role in nuclear receptor- mediated transcription (PubMed:). Required for hematopoietic stem cell function and hematopoiesis (By similarity). Required for cardiac homeostasis (By similarity).
Cellular Location	Endoplasmic reticulum membrane.Cytoplasm, cytosol Nucleus. Chromosome. Note=Recruited to double-strand breaks by the MRE11-RAD50-NBN (MRN) complex following DNA damage.

Tissue Location	Ubiquitously expressed, with a high expression in liver (at protein level)(PubMed:20018847).Low expression in several invasive hepato cellular carcinomas, such Hep-G2, Hep 3B2.1-7, HLE and PLC (PubMed: 20018847).
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



WB (Western Blot)

Western blot analysis of K0776 Antibody (Center) in MCF-7 cell line lysates (35ug/lane).
K0776 (arrow) was detected using the purified Pab.

ADDITIONAL INFORMATION

Product Categories/Family for anti-UFL1 antibody	Cell Biology
References	Kwon, J., et al. J. Biol. Chem. 285(16):12232-12240(2010) Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) : Olsen, J.V., et al. Cell 127(3):635-648(2006) Beausoleil, S.A., et al. Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135(2004) Beausoleil, S.A., et al. Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135(2004) Mungall, A.J., et al. Nature 425(6960):805-811(2003)

NCBI AND UNIPROT INFORMATION

NCBI GI #	24308039
NCBI GeneID	23376
NCBI Accession #	NP_056138.1
NCBI GenBank Nucleotide #	NM_015323.4
UniProt Accession #	O94874; Q8N765; Q9NTQ0; A0PJ53; B4DJ57; C0H5X5
Molecular Weight	89595
NCBI Official Full Name	E3 UFM1-protein ligase 1
NCBI Official Synonym Full Names	UFM1-specific ligase 1
NCBI Official Symbol	UFL1
NCBI Official Synonym Symbols	NLBP; RCAD; Maxer; KIAA0776
NCBI Protein Information	E3 UFM1-protein ligase 1
UniProt Protein Name	E3 UFM1-protein ligase 1
UniProt Gene Name	UFL1
UniProt Entry Name	UFL1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.