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USP2 Antibody (C-term L523) Blocking Peptide

Synthetic peptide
Catalog # BP2131c

Specification

USP2 Antibody (C-term L523) Blocking Peptide - Product Information

Primary Accession O75604

USP2 Antibody (C-term L523) Blocking Peptide - Additional Information

Gene ID 9099

Other Names
Ubiquitin carboxyl-terminal hydrolase 2, 41 kDa ubiquitin-specific protease, Deubiquitinating enzyme 2, Ubiquitin thioesterase 2, Ubiquitin-specific-processing protease 2, USP2, UBP41

Target/Specificity
The synthetic peptide sequence used to generate the antibody <a >AP2131c was selected from the C-term region of human USP2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

USP2 Antibody (C-term L523) Blocking Peptide - Protein Information

Name USP2

Synonyms UBP41

Function
Hydrolase that deubiquitinates polyubiquitinated target proteins such as MDM2, MDM4 and CCND1 (PubMed:17290220, PubMed:19838211, PubMed:19917254). Isoform 1 and isoform 4 possess both ubiquitin-specific peptidase and isopeptidase activities (By similarity). Deubiquitinates MDM2 without reversing MDM2-mediated p53/TP53 ubiquitination and thus indirectly promotes p53/TP53 degradation and limits p53 activity (PubMed:17290220, PubMed:19838211). Has no deubiquitinase activity against p53/TP53 (PubMed:<a

href="http://www.uniprot.org/citations/17290220" target="_blank">17290220). Prevents MDM2-mediated degradation of MDM4 (PubMed:17290220). Plays a role in the G1/S cell-cycle progression in normal and cancer cells (PubMed:19917254). Regulates the circadian clock by modulating its intrinsic circadian rhythm and its capacity to respond to external cues (By similarity). Associates with clock proteins and deubiquitinates core clock component PER1 but does not affect its overall stability (By similarity). Regulates the nucleocytoplasmic shuttling and nuclear retention of PER1 and its repressive role on the clock transcription factors CLOCK and BMAL1 (By similarity). Plays a role in the regulation of myogenic differentiation of embryonic muscle cells (By similarity).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:O88623}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:O88623} Note=Localizes in the spermatid head in late-elongating spermatids in the thin area between the outer acrosomal membrane and the plasma membrane. {ECO:0000250|UniProtKB:Q5U349}

Tissue Location
Expressed in mesangial cells of the kidney and in different types of glomerulonephritides (at protein level)

USP2 Antibody (C-term L523) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

USP2 Antibody (C-term L523) Blocking Peptide - Images

USP2 Antibody (C-term L523) Blocking Peptide - Background

USP2, an ubiquitin-specific protease, is selectively up regulated in bone by the osteotropic agents PTH, PTHrP and PGE2 and possibly via the PKA/cAMP pathway. It is also thought to play a role in the recycling of ubiquitin by hydrolysis of branched poly-ubiquitin from linear poly-ubiquitin chains, production of free ubiquitin from linear poly-ubiquitin chains and from certain ribosomal ubiquitin fusion proteins.

USP2 Antibody (C-term L523) Blocking Peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).