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USP8 (UBPY) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP2138b

Specification

USP8 (UBPY) Antibody (C-term) Blocking peptide - Product Information

Primary Accession P40818

USP8 (UBPY) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 9101

Other Names
Ubiquitin carboxyl-terminal hydrolase 8, Deubiquitinating enzyme 8, Ubiquitin isopeptidase Y, hUBPy, Ubiquitin thioesterase 8, Ubiquitin-specific-processing protease 8, USP8, KIAA0055, UBPY

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2138b was selected from the C-term region of human USP8. 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.

USP8 (UBPY) Antibody (C-term) Blocking peptide - Protein Information

Name USP8 (HGNC:12631)

Synonyms KIAA0055, UBPY

Function
Hydrolase that can remove conjugated ubiquitin from proteins and therefore plays an important regulatory role at the level of protein turnover by preventing degradation. Converts both 'Lys-48' an 'Lys-63'-linked ubiquitin chains. Catalytic activity is enhanced in the M phase. Involved in cell proliferation. Required to enter into S phase in response to serum stimulation. May regulate T-cell anergy mediated by RNF128 via the formation of a complex containing RNF128 and OTUB1. Probably regulates the stability of STAM2 and RASGRF1. Regulates endosomal ubiquitin dynamics, cargo sorting, membrane traffic at early endosomes, and maintenance of ESCRT-0 stability. The level of protein ubiquitination on endosomes is essential for maintaining the morphology of the organelle. Deubiquitinates EPS15 and controls tyrosine kinase stability. Removes conjugated

ubiquitin from EGFR thus regulating EGFR degradation and downstream MAPK signaling. Involved in acrosome biogenesis through interaction with the spermatid ESCRT-0 complex and microtubules. Deubiquitinates BIRC6/bruce and KIF23/MKLP1. Deubiquitinates BACE1 which inhibits BACE1 lysosomal degradation and modulates BACE-mediated APP cleavage and amyloid-beta formation (PubMed:27302062).

Cellular Location
Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q80U87} Endosome membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein

USP8 (UBPY) Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

USP8 (UBPY) Antibody (C-term) Blocking peptide - Images

USP8 (UBPY) Antibody (C-term) Blocking peptide - Background

Modification of target proteins by ubiquitin participates in a wide array of biological functions. Proteins destined for degradation or processing via the 26 S proteasome are coupled to multiple copies of ubiquitin. However, attachment of ubiquitin or ubiquitin-related molecules may also result in changes in subcellular distribution or modification of protein activity. An additional level of ubiquitin regulation, deubiquitination, is catalyzed by proteases called deubiquitinating enzymes, which fall into four distinct families. Ubiquitin C-terminal hydrolases, ubiquitin-specific processing proteases (USPs),1 OTU-domain ubiquitin-aldehyde-binding proteins, and Jab1/Pad1/MPN-domain-containing metallo-enzymes. Among these four families, USPs represent the most widespread and represented deubiquitinating enzymes across evolution. USPs tend to release ubiquitin from a conjugated protein. They display similar catalytic domains containing conserved Cys and His boxes but divergent N-terminal and occasionally C-terminal extensions, which are thought to function in substrate recognition, subcellular localization, and protein-protein interactions.

USP8 (UBPY) Antibody (C-term) Blocking peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Soncini, C., et al., Oncogene 20(29):3869-3879 (2001).Nagase, T., et al., DNA Res. 3(1):17-24 (1996).