USP19 Antibody (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	USP19, Blocking Peptide
Full Product Name	USP19 Antibody (C-term) Blocking Peptide
Product Gene Name	USP19 blocking peptide
Product Synonym Names	Ubiquitin carboxyl-terminal hydrolase 19; Deubiquitinating enzyme 19; Ubiquitin thioesterase 19; Ubiquitin-specific-processing protease 19; Zinc finger MYND domain-containing protein 9; USP19; KIAA0891; ZMYND9
Form/Format	Lyophilized with 100% acetonitrile and is supplied as a powder.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the C-term region of human USP19. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	USP19 peptide (MBS9231494) is used for blocking the activity of USP19 antibody (MBS9207748)
OMIM	614471
Reconstitution	Reconstitute with 0.1 ml deionized water for a final concentration of 1 mg/ml.
Related Product Information for USP19 blocking peptide	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.
Other Notes	Small volumes of USP19 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for USP19 purchase	MBS9231494 is a blocking peptide targeting USP19. Also known as USP19 Antibody (C-term) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for USP19. It may not necessarily be applicable to this product.

NCBI GI #	312596871
NCBI GeneID	10869
NCBI Accession #	NP_001186089.1
NCBI Related Accession #	NP_001186090.1; NP_001186091.1; NP_006668.1
UniProt Primary Accession #	O94966
UniProt Related Accession #	O94966
GenBank Nucleotide #	NM_001199160.1

NCBI Official Full Name	ubiquitin carboxyl-terminal hydrolase 19 isoform 1
NCBI Official Synonym Full Names	ubiquitin specific peptidase 19
NCBI Official Symbol	USP19
NCBI Official Synonym Symbols	ZMYND9
UniProt Protein Name	Ubiquitin carboxyl-terminal hydrolase 19
UniProt Synonym Protein Names	Deubiquitinating enzyme 19; Ubiquitin thioesterase 19; Ubiquitin-specific-processing protease 19; Zinc finger MYND domain-containing protein 9
UniProt Gene Name	USP19
UniProt Synonym Gene Names	KIAA0891; ZMYND9
UniProt Entry Name	UBP19_HUMAN
NCBI Protein Information	ubiquitin carboxyl-terminal hydrolase 19
NCBI Summary for USP19	Protein ubiquitination controls many intracellular processes, including cell cycle progression, transcriptional activation, and signal transduction. This dynamic process, involving ubiquitin conjugating enzymes and deubiquitinating enzymes, adds and removes ubiquitin. Deubiquitinating enzymes are cysteine proteases that specifically cleave ubiquitin from ubiquitin-conjugated protein substrates. This protein is a ubiquitin protein ligase and plays a role in muscle wasting. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2017]
UniProt Comments for USP19	USP19: Deubiquitinating enzyme that regulates the degradation of various proteins. Deubiquitinates and prevents proteasomal degradation of RNF123 which in turn stimulates CDKN1B ubiquitin- dependent degradation thereby playing a role in cell proliferation. Involved in decreased protein synthesis in atrophying skeletal muscle. Modulates transcription of major myofibrillar proteins. Also involved in turnover of endoplasmic- reticulum-associated degradation (ERAD) substrates. Regulates the stability of BIRC2/c-IAP1 and BIRC3/c-IAP2 by preventing their ubiquitination. Required for cells to mount an appropriate response to hypoxia and rescues HIF1A from degradation in a non- catalytic manner. Plays an important role in 17 beta-estradiol (E2)-inhibited myogenesis. Decreases the levels of ubiquitinated proteins during skeletal muscle formation and acts to repress myogenesis. Exhibits a preference towards 'Lys-63'-linked Ubiquitin chains. Belongs to the peptidase C19 family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.4.19.12; Ubiquitin-specific protease; Protease; Membrane protein, integral; Ubiquitin conjugating system Chromosomal Location of Human Ortholog: 3p21.31 Cellular Component: endoplasmic reticulum membrane; integral to membrane; cytosol Molecular Function: protein binding; metal ion binding; cysteine-type endopeptidase activity; ubiquitin-specific protease activity Biological Process: negative regulation of skeletal muscle development; ER-associated protein catabolic process; protein deubiquitination; regulation of protein stability
Research Articles on USP19	**1.** USP19 modulates GR levels and in so doing may modulate both insulin and glucocorticoid signaling, two critical pathways that control protein turnover in muscle and overall glucose homeostasis.
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