10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-USP9X Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1059

Product Information

Application	WB, FC, ICC
Primary Accession	Q93008
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB6090
Calculated MW	290463
Gene Name	USP9X
Aliases	USP9X; Ubiquitin Specific Peptidase 9 X-Linked; DFFRX; MRX99; FAF; Ubiquitin Specific Protease 9, X Chromosome (Fat Facets-Like Drosophila); Probable Ubiquitin Carboxyl-Terminal Hydrolase FAF-X; Ubiquitin-Specific Protease 9, X Chromosome; Deubiquitinating Enzyme FAF-X; Ubiquitin Thioesterase FAF-X; Fat Facets In Mammals; HFAM; FAM; Ubiquitin Specific Peptidase 9, X-Linked (Fat Facets-Like, Drosophila); Ubiquitin Specific Protease 9, X-Linked (Fat Facets-Like, Drosophila); Ubiquitin-Specific Processing Protease FAF-X; Ubiquitin-Specific-Processing Protease FAF-X; Drosophila Fat Facets Related, X-Linked; Fat Facets Protein Related, X-Linked; Fat Facets Protein-Related, X-Linked; Ubiquitin Thiolesterase FAF-X; EC 3.4.19.12; EC 3.1.2.15; MRXS99F; XLID99; USP9
Immunogen	A synthesized peptide derived from human USP9x

Additional Information

Gene ID	8239
Other Names	Ubiquitin carboxyl-terminal hydrolase 9X, 3.4.19.12, Deubiquitinating enzyme FAF-X, Fat facets in mammals, hFAM, Fat facets protein-related, X-linked, Ubiquitin thioesterase FAF-X, Ubiquitin-specific protease 9, X chromosome, Ubiquitin-specific-processing protease FAF-X, USP9X {ECO:0000303|PubMed:18254724, ECO:0000312|HGNC:HGNC:12632}

Protein Information

Name	USP9X {ECO:0000303|PubMed:18254724, ECO:0000312|HGNC:HGNC:12632}
Function	Deubiquitinase involved both in the processing of ubiquitin precursors and of ubiquitinated proteins (PubMed:18254724, PubMed:19135894, PubMed:22371489, PubMed:25944111, PubMed:29626158, PubMed:30914461, PubMed:37454738). May therefore play an important regulatory role at the level of protein turnover by preventing degradation of proteins through the removal of conjugated ubiquitin (PubMed:18254724,

PubMed:19135894, PubMed:22371489, PubMed:25944111, PubMed:29626158, PubMed:30914461, PubMed:37454738). Specifically hydrolyzes 'Lys-11'-, followed by 'Lys-63'-, 'Lys-48'- and 'Lys-6'- linked polyubiquitins chains (PubMed:30914461). Essential component of TGF-beta/BMP signaling cascade (PubMed:19135894). Specifically deubiquitinates monoubiquitinated SMAD4, opposing the activity of E3 ubiquitin-protein ligase TRIM33 (PubMed:19135894). Deubiquitinates alkylation repair enzyme ALKBH3 (PubMed:25944111). OTUD4 recruits USP7 and USP9X to stabilize ALKBH3, thereby promoting the repair of alkylated DNA lesions (PubMed:25944111). Deubiquitinates RNA demethylase enzyme ALKBH5, promoting its stability (PubMed:37454738). Deubiquitinates mTORC2 complex component RICTOR at 'Lys-294' by removing 'Lys-63'-linked polyubiquitin chains, stabilizing RICTOR and enhancing its binding to MTOR, thus promoting mTORC2 complex assembly (PubMed:33378666). Regulates chromosome alignment and segregation in mitosis by regulating the localization of BIRC5/survivin to mitotic centromeres (PubMed:16322459). Involved in axonal growth and neuronal cell migration (PubMed:24607389). Regulates cellular clock function by enhancing the protein stability and transcriptional activity of the core circadian protein BMAL1 via its deubiquitinating activity (PubMed:29626158). Acts as a regulator of peroxisome import by mediating deubiquitination of PEX5: specifically deubiquitinates PEX5 monoubiquitinated at 'Cys-11' following its retrotranslocation into the cytosol, resetting PEX5 for a subsequent import cycle (PubMed:22371489). Deubiquitinates PEG10 (By similarity). Inhibits the activation of the Hippo signaling pathway via deubiquitination of AMOTL2 at 'Lys-347' and 'Lys-408' which prohibits its interaction with and activation of LATS2. Loss of LATS2 activation and subsequent loss of YAP1 phosphorylation results in an increase in YAP1-driven transcription of target genes (PubMed:26598551, PubMed:34404733).

Cellular Location

Cytoplasm, cytosol. Cell projection, growth cone. Cytoplasm, cytoskeleton, cilium axoneme

Tissue Location

Widely expressed in embryonic and adult tissues.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.