

# USP9X antibody - C-terminal region

Rabbit Polyclonal Antibody Catalog # AI14384

#### **Product Information**

Application Primary Accession	WB, IHC <u>Q93008</u>
Other Accession	<u>NM_001039590</u> , <u>NP_001034679</u>
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Pig, Chicken, Dog, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	290463

### **Additional Information**

Gene ID	8239
Alias Symbol Other Names	DFFRX, FAF, FAM Probable ubiquitin carboxyl-terminal hydrolase FAF-X, 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, DFFRX, FAM, USP9
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-USP9X antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	USP9X antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

#### **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: <u>18254724</u> , PubMed: <u>19135894</u> , PubMed: <u>22371489</u> , PubMed: <u>25944111</u> , PubMed: <u>29626158</u> , PubMed: <u>30914461</u> , PubMed: <u>37454738</u> ). 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: <u>18254724</u> ,

	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.

#### References

Jones M.H.,et al.Hum. Mol. Genet. 5:1695-1701(1996). Jones M.H.,et al.Hum. Mol. Genet. 6:334-335(1996). Ross M.T.,et al.Nature 434:325-337(2005). Yu W.,et al.Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases. Rush J.,et al.Nat. Biotechnol. 23:94-101(2005).

#### Images

USP9X in Src3T3

mouse 3T3 s



Sample Type: 1. total HeLa cell extract (100ug)2. total HeLa cell extract incubated with HA-UbVME (100ug)3. Rat Liver cytosolic extract (100ug)4. Rat Liver cytosolic extract



## Citations

• Proteome-wide changes induced by the Hsp90 inhibitor, geldanamycin in anaplastic large cell lymphoma cells.

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