

USP9X Protein, Human

Cat. No.:	HY-P701432
Synonyms:	USP9X; Probable ubiquitin carboxyl-terminal hydrolase FAF-X; 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
Species:	Human
Source:	E. coli
Accession:	Q93008 (K1554-N1995)
Gene ID:	8239
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>The USP9X Protein, subject to this description, plays a crucial role as a deubiquitinase involved in both the processing of ubiquitin precursors and ubiquitinated proteins. With a significant impact on protein turnover, USP9X prevents degradation by removing conjugated ubiquitin. It exhibits specificity in hydrolyzing various polyubiquitin chain linkages, including 'Lys-63,' 'Lys-48,' 'Lys-29,' and 'Lys-33.' USP9X is an essential component of the TGF-beta/BMP signaling cascade, deubiquitinating SMAD4 and opposing the activity of the E3 ubiquitin-protein ligase TRIM33. Additionally, it regulates alkylated DNA lesion repair by deubiquitinating ALKBH3, collaborating with OTUD4. USP9X stabilizes the mTORC2 complex component RICTOR, enhancing its binding to MTOR and promoting complex assembly. In mitosis, it regulates chromosome alignment and segregation by controlling the localization of BIRC5/survivin to centromeres. USP9X influences axonal growth, neuronal cell migration, and cellular clock function, enhancing BMAL1 stability and transcriptional activity. Furthermore, it acts as a regulator of peroxisome import by deubiquitinating PEX5 and deubiquitinates PEG10. This multifaceted role highlights the diverse cellular functions orchestrated by USP9X through its deubiquitinating activity.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA