

#12497 Store at -20°C

## OS-9 (D8P4G) Rabbit mAb

Cell Signaling  
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	83,97	Rabbit IgG	#Q13438	10956

<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:50
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	OS-9 (D8P4G) Rabbit mAb recognizes endogenous levels of total OS-9 protein. This antibody reacts with OS-9 isoform 1 (OS-9-1) and OS-9 isoform 2 (OS-9-2).	
<b>Species predicted to react based on 100% sequence homology:</b>	Bovine, Horse	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human OS-9 protein.	
<b>Background</b>	Amplified in Osteosarcoma 9 (OS-9) was identified as a gene that is frequently amplified in human sarcomas (1). OS-9 is an N-glycosylated ER resident protein that harbors a mannose-6-phosphate receptor homology (MRH) domain and plays a critical role in mammalian ER quality control, in part, by functioning as a lectin. There are two major isoforms of OS-9 (OS-9-1, OS-9-2) that are generated through alternative splicing of mRNA (2). The expression of both OS-9 isoforms is enhanced upon activation of the IRE1/XBP1 pathway in cells exposed to acute ER stress. It is postulated that OS-9 serves as a retention factor for glycosylated and nonglycosylated, misfolded proteins, preventing their progression through the secretory pathway (3,4). Furthermore, OS-9 promotes the removal of misfolded proteins from the ER lumen and their subsequent proteasome-dependent degradation via its association with the Hrd1-SEL1L ubiquitin ligase complex (5).	
<b>Background References</b>	1. Su, Y.A. et al. (1996) <i>Mol Carcinog</i> 15, 270-5. 2. Kimura, Y. et al. (1998) <i>J Biochem</i> 123, 876-82. 3. Bernasconi, R. et al. (2008) <i>J Biol Chem</i> 283, 16446-54. 4. Alcock, F. and Swanton, E. (2009) <i>J Mol Biol</i> 385, 1032-42. 5. Christianson, J.C. et al. (2008) <i>Nat Cell Biol</i> 10, 272-82.	
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.	
<b>Applications Key</b>	<b>WB:</b> Western Blotting <b>IP:</b> Immunoprecipitation	
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected	
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