

OS-9 (D8P4G) Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

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

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

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.

Specificity/Sensitivity

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).

Species predicted to react based on 100% sequence homology

Bovine, Horse

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human OS-9 protein.

Background

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).

Background References

1. Su, Y.A. et al. (1996) *Mol Carcinog* 15, 270-5.
2. Kimura, Y. et al. (1998) *J Biochem* 123, 876-82.
3. Bernasconi, R. et al. (2008) *J Biol Chem* 283, 16446-54.
4. Alcock, F. and Swanton, E. (2009) *J Mol Biol* 385, 1032-42.
5. Christianson, J.C. et al. (2008) *Nat Cell Biol* 10, 272-82.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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