

#4786 Store at -20°C

Ubc9 (D26F2) XP® Rabbit mAb


Cell Signaling
TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H M R Mk	Endogenous	17	Rabbit IgG	#P63279	7329

Product Usage Information

Application

Western Blotting
Immunofluorescence (Immunocytochemistry)

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

Ubc9 (D26F) XP® Rabbit mAb detects endogenous levels of total Ubc9 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile125 of human Ubc9 protein.

Background

The process of SUMO-1 conjugation is similar to that seen with ubiquitin and other forms of post-translational protein modification (1). Like ubiquitin, SUMO-1 is conjugated to its target protein by the coordinated action of ubiquitin conjugation enzymes E1, E2 and E3 (2). Ubc9 (or ube2M) is a highly conserved, 158 amino acid protein that acts as a SUMO-1 conjugating enzyme (3). Ubc9 binds to target proteins through their SUMO-1-CS (consensus sequence) domains and interacts with SUMO via the structurally conserved amino-terminal domain (3,4). Localization of Ubc9 to the nucleus and the nuclear envelope allows this enzyme to catalyze target protein sumoylation and regulate target protein nucleocytoplasmic transport and transcriptional activity (5,6). Ubc9 target proteins include a host of proteins (RAD51, RAD52, p53 and c-Jun) that regulate the cell cycle, DNA repair, and p53-dependent processes (7).

Background References

1. Geiss-Friedlander, R. and Melchior, F. (2007) *Nat Rev Mol Cell Biol* 8, 947-56.
2. Tatham, M.H. et al. (2003) *Biochemistry* 42, 3168-79.
3. Sampson, D.A. et al. (2001) *J Biol Chem* 276, 21664-9.
4. Liu, Q. et al. (1999) *J Biol Chem* 274, 16979-87.
5. Lee, G.W. et al. (1998) *J Biol Chem* 273, 6503-7.
6. Pichler, A. and Melchior, F. (2002) *Traffic* 3, 381-7.
7. Mo, Y.Y. and Moschos, S.J. (2005) *Expert Opin Ther Targets* 9, 1203-16.

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

WB: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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