

USP13 (D4P3M) Rabbit mAb

✓ 100 µl
(10 western blots)

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New 06/13

For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #8975
Swiss-Prot Acc. #Q92995

Applications W Endogenous	Species Cross-Reactivity* H	Molecular Wt. 100 kDa	Isotype Rabbit IgG**
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Background: Ubiquitinating enzymes (UBEs) catalyze protein ubiquitination, a reversible process countered by deubiquitinating enzyme (DUB) action (1,2). Five DUB subfamilies are recognized, including the USP, UCH, OTU, MJD, and JAMM enzymes. Ubiquitin carboxyl-terminal hydrolase 13 (USP13; isopeptidase T-3) contains four ubiquitin-associated/translation elongation factor EF1B, amino terminal (UBA) domains and one ubiquitin-specific processing protease (UBP) domain. The UBP domain of USP13 contains a catalytic site, a zinc finger domain, and two UBA domains. Similar to other USP family members, USP13 contains cysteines and histidines that are likely involved in its catalytic mechanism. Studies show that USP13 plays a critical role in autophagy through the deubiquitination of target proteins such as BECN1 and USP10 (3). Research also suggests that USP13 is implicated in the pathogenesis of melanoma through its ability to regulate the ubiquitination status of MITF (4).

Specificity/Sensitivity: USP13 (D4P3M) Rabbit mAb recognizes endogenous levels of total USP13 protein. This antibody does not cross-react with USP5/ISOT.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human USP13 protein.

Background References:

- (1) Chen, M. et al. (2011) *Proc Natl Acad Sci U S A* 108, 9119-24.
- (2) Nijman, S.M. et al. (2005) *Cell* 123, 773-86.
- (3) Liu, J. et al. (2011) *Cell* 147, 223-34.
- (4) Zhao, X. et al. (2011) *Nat Commun* 2, 414.

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.*

***Species cross-reactivity is determined by western blot.**

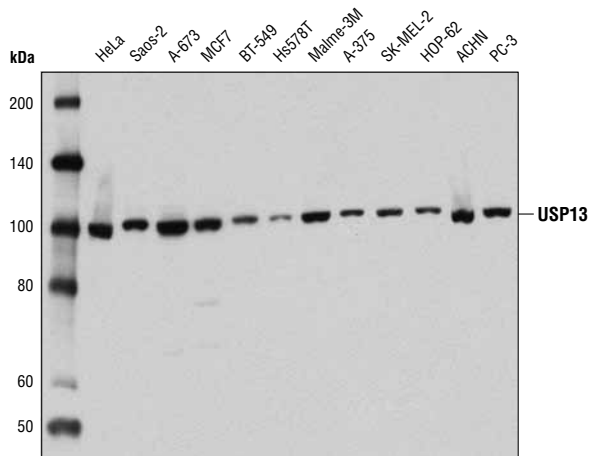
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.



Western blot analysis of extracts from various cell lines using USP13 (D4P3M) Rabbit mAb.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.