

#13437 Store at -20C

EXPAND1/MUM1 (D1Z6Y) 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

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Applications: WB	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 85	Source/Isotype: Rabbit IgG	UniProt ID: #Q2TAK8	Entrez-Gene Id: 84939
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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

EXPAND1/MUM1 (D1Z6Y) Rabbit mAb recognizes endogenous levels of total EXPAND1/MUM1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg692 of human EXPAND1/MUM1 protein.

Background

DNA double-strand breaks (DSBs) are potentially hazardous lesions that can be induced by ionizing radiation (IR), radiomimetic chemicals, or DNA replication inhibitors. Melanoma associated antigen (mutated) 1 (MUM1, EXPAND1) is a PWWP-domain containing chromatin binding protein involved in maintaining chromatin architecture of interphase chromosomes. In response to DNA damage, EXPAND1/MUM1 accumulates at sites of DNA double strand breaks through direct interaction with DNA repair factor 53BP1 (1). Accumulation of EXPAND1/MUM1 at damaged DNA sites is thought to modify the structure of the chromatin and allow access to other DNA repair factors (2). 53BP1 activates the checkpoint kinase ATM and promotes DNA double strand break repair via nonhomologous end joining (NHEJ) repair pathway (3).

Background References

1. Huen, M.S. et al. (2010) *Mol Cell* 37, 854-64.
2. Sy, S.M. et al. (2010) *Nucleus* 1, 472-4.
3. Mochan, T.A. et al. (2004) *DNA Repair (Amst)* 3, 945-52.

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

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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