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#4120

Microcephalin-1/BRIT1 (D38G5) Rabbit mAb

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	100	Rabbit IgG	#Q8NEM0	79648

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

Microcephalin-1/BRIT1 (D38G5) Rabbit mAb detects endogenous levels of total Microcephalin-1/BRIT1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to central residues of human Microcephalin-1/BRIT1.

Background

Microcephalin-1 (MCPH1)/BRIT1 is an early DNA damage response protein named for its mutated state in the human disease primary microcephaly. BRIT1 forms damage-induced nuclear foci, is involved in DNA damage and cell cycle checkpoints as well as regulation of mitosis. BRIT1 function is necessary for DNA damage responses, and the absence of BRIT1 function leads to genome instability. A potential tumor suppressor, BRIT1 expression is reduced in human carcinomas (1-2, reviewed in 3). BRIT1 colocalizes with other DNA repair proteins (53BP1, MDC1, NBS1, ATM, RPA, and ATR) and is required for their activation (2). BRIT1 likely regulates DNA repair through chromatin remodeling in response to DNA damage, allowing access of repair proteins to DNA (4).

Background References

1. Lin, S.Y. et al. (2005) *Proc Natl Acad Sci U S A* 102, 15105-9.
2. Rai, R. et al. (2006) *Cancer Cell* 10, 145-57.
3. Chaplet, M. et al. (2006) *Cell Cycle* 5, 2579-83.
4. Peng, G. et al. (2009) *Nat Cell Biol* 11, 865-72.

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

Cross-Reactivity Key

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

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