

FEN-1 (E4S8C) Rabbit mAb

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Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 45	Source/Isotype: Rabbit IgG	UniProt ID: #P39748	Entrez-Gene Id: 2237
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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

FEN-1 (E4S8C) Rabbit mAb recognizes endogenous levels of total FEN-1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln315 of human FEN-1 protein.

Background

Flap endonuclease-1 (FEN-1) is a structure-specific nuclease with multiple functions in DNA processing pathways (1,2). The replication and DNA repair activities of FEN-1 are critical for genomic stability in the eukaryotic cell. Through interaction with proliferation cell nuclear antigen (PCNA), FEN-1 helps coordinate Okazaki fragment maturation by removing RNA-DNA primers (3). FEN-1 is also required for non-homologous end joining of double-stranded DNA breaks in long patch base excision repair (4,5). The multi-functional activities of FEN-1 are regulated by various mechanisms, including protein partner interactions (6,7), post-translational modifications (8,9), and subcellular re-localization in response to cell cycle or DNA damage (10).

Background References

1. Shen, B. et al. (2005) *Bioessays* 27, 717-29.
2. Liu, Y. et al. (2004) *Annu. Rev. Biochem.* 73, 589-615.
3. Sakurai, S. et al. (2005) *EMBO J.* 24, 683-93.
4. Wu, X. et al. (1999) *Proc. Natl. Acad. Sci. USA* 96, 1303-8.
5. Gary, R. et al. (1999) *J. Biol. Chem.* 274, 4354-63.
6. Brosh, R.M. et al. (2001) *EMBO J.* 20, 5791-801.
7. Sharma, S. et al. (2004) *J. Biol. Chem.* 279, 9847-56.
8. Henneke, G. et al. (2003) *Oncogene* 22, 4301-13.
9. Hasan, S. et al. (2001) *Mol. Cell* 7, 1221-31.
10. Qiu, J. et al. (2001) *J. Biol. Chem.* 276, 4901-8.

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 nonfat dry milk, 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

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