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EME2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16348b

Product Information

Application	WB, E
Primary Accession	A4GXA9
Other Accession	NP_001010865.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28786
Calculated MW	41178
Antigen Region	249-278

Additional Information

Gene ID	197342
Other Names	Probable crossover junction endonuclease EME2, 3122-, EME2
Target/Specificity	This EME2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 249-278 amino acids from the C-terminal region of human EME2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EME2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EME2 {ECO:0000303|PubMed:35290797, ECO:0000312|HGNC:HGNC:27289}
Function	Non-catalytic subunit of the structure-specific, heterodimeric DNA endonuclease MUS81-EME2 which is involved in the maintenance of genome stability. In the complex, EME2 is required for DNA cleavage, participating in DNA recognition and bending (PubMed:17289582, PubMed:24371268,

PubMed:24813886, PubMed:35290797). MUS81-EME2 cleaves 3'-flaps and nicked Holliday junctions, and exhibit limited endonuclease activity with 5' flaps and nicked double-stranded DNAs (PubMed:24371268). MUS81-EME2 which is active during the replication of DNA is more specifically involved in replication fork processing (PubMed:17289582, PubMed:24813886). Replication forks frequently encounter obstacles to their passage, including DNA base lesions, DNA interstrand cross-links, difficult-to-replicate sequences, transcription bubbles, or tightly bound proteins. One mechanism for the restart of a stalled replication fork involves nucleolytic cleavage mediated by the MUS81-EME2 endonuclease. By acting upon the stalled fork, MUS81-EME2 generates a DNA double-strand break (DSB) that can be repaired by homologous recombination, leading to the restoration of an active fork (PubMed:24813886). MUS81-EME2 could also function in telomere maintenance (PubMed:24813886).

Cellular Location Nucleus.

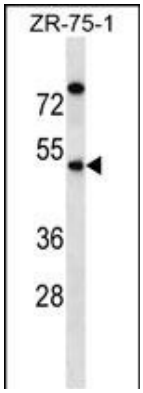
Background

EME2 forms a heterodimer with MUS81 (MIM 606591) that functions as an XPF (MIM 278760)-type flap/fork endonuclease in DNA repair (Ciccia et al., 2007 [PubMed 17289582]).

References

Ciccia, A., et al. Mol. Cell 25(3):331-343(2007)
Ciccia, A., et al. J. Biol. Chem. 278(27):25172-25178(2003)
Daniels, R.J., et al. Hum. Mol. Genet. 10(4):339-352(2001)

Images



EME2 Antibody (C-term) (Cat. #AP16348b) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the EME2 antibody detected the EME2 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.