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# EME2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16348b

## Product Information

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|---|---|
| **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

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|---|---|
| **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

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| **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.

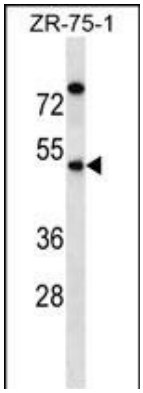
## Background

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).