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MTMR15 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5247a

Product Information

Application	WB, FC, E
Primary Accession	Q9Y2M0
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26526
Calculated MW	114225
Antigen Region	146-174

Additional Information

Gene ID	22909
Other Names	Fanconi-associated nuclease 1, 3121-, FANCD2/FANCI-associated nuclease 1, Myotubularin-related protein 15, FAN1, KIAA1018, MTMR15
Target/Specificity	This MTMRF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 146-174 amino acids from the N-terminal region of human MTMRF.
Dilution	WB~~1:1000 FC~~1:10~50 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	MTMR15 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FAN1 {ECO:0000303|PubMed:20603015}
Function	Nuclease required for the repair of DNA interstrand cross- links (ICL) recruited at sites of DNA damage by monoubiquitinated FANCD2. Specifically involved in repair of ICL-induced DNA breaks by being required for efficient homologous recombination, probably in the resolution of homologous

recombination intermediates (PubMed:20603015, PubMed:20603016, PubMed:20603073, PubMed:20671156, PubMed:24981866, PubMed:25430771). Not involved in DNA double-strand breaks resection (PubMed:20603015, PubMed:20603016). Acts as a 5'-3' exonuclease that anchors at a cut end of DNA and cleaves DNA successively at every third nucleotide, allowing to excise an ICL from one strand through flanking incisions. Probably keeps excising with 3'-flap annealing until it reaches and unhooks the ICL (PubMed:25430771). Acts at sites that have a 5'-terminal phosphate anchor at a nick or a 1- or 2-nucleotide flap and is augmented by a 3' flap (PubMed:25430771). Also has endonuclease activity toward 5'-flaps (PubMed:20603015, PubMed:20603016, PubMed:24981866).

Cellular Location

Nucleus Note=Localizes at sites of DNA damage following recruitment by monoubiquitinated FANCD2 (PubMed:20603015, PubMed:20603016). Localizes to stalled replication forks via its UBZ4-type zinc finger (PubMed:20935496).

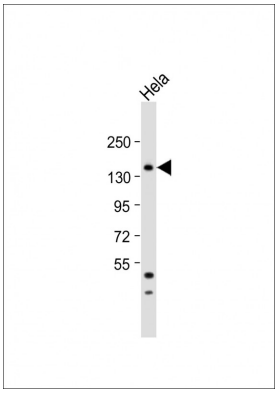
Background

MTMRF encodes a member of the myotubularin-related class 1 cysteine-based protein tyrosine phosphatases. The encoded protein may be catalytically inactive.

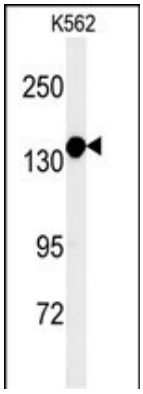
References

Kimura, K., et al. Genome Res. 16(1):55-65(2006)
Suzuki, Y., et al. Genome Res. 14(9):1711-1718(2004)
Alonso, A., et al. Cell 117(6):699-711(2004)

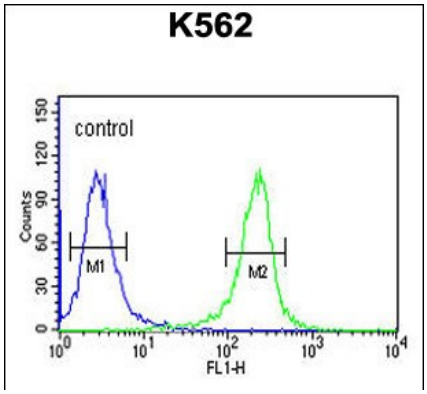
Images



Anti-MTMRF Antibody (N-term) at 1:1000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 114 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of MTMRF Antibody (N-term) (Cat. #AP5247a) in K562 cell line lysates (35ug/lane).MTMRF (arrow) was detected using the purified Pab.



MTMRF Antibody (N-term) (Cat. #AP5247a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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