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SETMAR Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57615

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q53H47
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	78034

Additional Information

Gene ID	6419
Other Names	Histone-lysine N-methyltransferase SETMAR, SET domain and mariner transposase fusion protein, Metnase, Histone-lysine N-methyltransferase, 2.1.1.357, Transposon Hsmar1 transposase, 3.1.-.-, SETMAR (HGNC:10762)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SETMAR (HGNC:10762)
Function	Protein derived from the fusion of a methylase with the transposase of an Hsmar1 transposon that plays a role in DNA double- strand break repair, stalled replication fork restart and DNA integration. DNA-binding protein, it is indirectly recruited to sites of DNA damage through protein-protein interactions. Also has kept a sequence-specific DNA-binding activity recognizing the 19-mer core of the 5'-terminal inverted repeats (TIRs) of the Hsmar1 element and displays a DNA nicking and end joining activity (PubMed:16332963, PubMed:16672366, PubMed:17403897, PubMed:17877369, PubMed:18263876, PubMed:20521842, PubMed:22231448, PubMed:24573677). In parallel, has a histone methyltransferase activity and methylates 'Lys-4' and 'Lys-36' of histone H3. Specifically mediates dimethylation of H3 'Lys-36' at sites of DNA double-strand break and may recruit proteins required for efficient DSB repair through non-homologous end-joining (PubMed:16332963, PubMed:21187428, PubMed:22231448). Also regulates replication fork processing, promoting replication fork restart and regulating DNA

	decatenation through stimulation of the topoisomerase activity of TOP2A (PubMed:18790802, PubMed:20457750).
Cellular Location	Nucleus. Chromosome Note=Recruited on damaged DNA at sites of double-strand breaks
Tissue Location	Widely expressed, with highest expression in placenta and ovary and lowest expression in skeletal muscle

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