

## Product Information

### SETMAR, GST-tagged, human recombinant, expressed in Sf9 cells

Catalog Number **SRP5262**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonyms: Metnase

#### Product Description

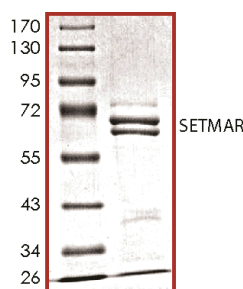
SETMAR or SET domain and mariner transposase fusion gene is a non-homologous end-joining repair protein that regulates genomic integration of exogenous DNA by opening chromatin and facilitating joining of DNA ends.<sup>1</sup> SETMAR has histone methyltransferase activity and methylates lys<sup>4</sup> and lys<sup>36</sup> of histone H3. SETMAR also has DNA nicking activity and may play a role in DNA repair.<sup>2</sup> Human Pso4 forms a stable complex with SETMAR that regulates Metnase function in DNA repair. SETMAR has sequence-specific DNA-binding activity and recognizes the 19-mer core of the 5'-terminal inverted repeats (TIRs) of the Hsmar1 element.

Recombinant full-length human SETMAR was expressed by baculovirus in Sf9 insect cells using an N-terminal GST-tag. The gene accession number is BC011635. It is supplied in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~66-69 kDa

The enzymatic activity of this product has not been determined.

**Figure 1.**  
SDS-PAGE Gel of Typical Lot:  
 $\geq 70\%$  (SDS-PAGE, densitometry)



#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

The product ships on dry ice and storage at  $-70^{\circ}\text{C}$  is recommended. After opening, aliquot into smaller quantities and store at  $-70^{\circ}\text{C}$ . Avoid repeated handling and multiple freeze/thaw cycles.

#### References

1. Lee, S.-H. et al., The SET domain protein Metnase mediates foreign DNA integration and links integration to non-homologous end-joining repair. *Proc. Nat. Acad. Sci.*, **102**, 18075-18080 (2005).
2. Liu, D. et al., The human SETMAR protein preserves most of the activities of the ancestral Hsmar1 transposase. *Molec. Cell. Biol.*, **27**, 1125-1132 (2007).

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