

# Product Information

## Anti-SET antibody, Mouse monoclonal

clone SET51, purified from hybridoma cell culture

Catalog Number **SAB4200479**

### Product Description

Anti-SET (mouse IgG2b isotype) is derived from the hybridoma SET51 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a peptide corresponding to a sequence within the internal region of human SET (GenelID: 6418), conjugated to KLH. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-SET recognizes human, monkey, bovine dog, rat and mouse SET. The product may be used in several immunochemical techniques including immunoblotting (~37 kDa). Staining of the SET band in immunoblotting is specifically inhibited by the immunizing protein.

The SET protein is localized to the nucleus and cytoplasm and has a critical role in the regulation of normal and cancer signal transduction. It contains a highly acidic C-terminal region that is involved in chromatin remodeling. In fact, SET itself is also a potent and specific inhibitor of protein phosphatase 2A (PP2A) activity, and exerts its activity via its N-terminal part.<sup>1</sup> In addition, it has also been described as an inhibitor of the tumor suppressor NM23-H1, a granzyme A DNAse-activated factor, and a negative regulator of histone acetylation.<sup>2-3</sup> Interestingly, in acute non-lymphocytic myeloid leukaemia, SET was found to be fused to CAN (nucleoporin Nup214), apparently as a result of a chromosomal translocation. As such, the formation of this SET-CAN fusion protein may impair the normal regulation of PP2A and contribute to leukaemogenesis.<sup>1</sup> SET was also found to regulate human NK-cell cytotoxicity, by regulating NK-cell IFN- $\gamma$  production granzyme B gene expression via PP2A inactivation.<sup>4</sup>

### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

### Precautions and Disclaimer

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

For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

### Product Profile

Immunoblotting: a working concentration of 0.5-1.0 µg/mL is recommended using K562 total cell extracts.

**Note:** In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

### References

1. Janssens, V., and Goris, J., *Biochem. J.*, **353**, 417-439 (2001).
2. Fan, Z., et al., *Cell*, **112**, 659-672 (2003).
3. Seo S.B. et al., *Cell*, **104**, 119-130 (2001).
4. Trotta, R., et al., *Blood*, **117**, 2378-2384 (2011).

RC,GG,AK-N,PHC 04/21-1