

## Product Information

### Monoclonal Anti-PNK, Clone H101.5

produced in mouse, purified immunoglobulin

Catalog Number **SAB4200134**

#### Product Description

Monoclonal Anti-PNK (mouse IgG1 isotype) is derived from the hybridoma H101.5 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a human PNK (GeneID: 11284) recombinant protein. 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.

Monoclonal Anti-PNK recognizes human, monkey and calf PNK. The antibody may be used in several immunochemical techniques including immunoblotting (~55 kDa) and immunoprecipitation.<sup>1-2</sup>

PNK (polydeoxyribonucleotide kinase) is a mammalian DNA repair enzyme which catalyzes the phosphorylation of DNA 5'-hydroxyl termini and the dephosphorylation of 3'-phosphate termini. PNK plays an important role in DNA repair following ionizing radiation or oxidative damage. PNK is composed of a kinase domain at the C-terminus, a phosphatase domain in the center and a forkhead associated (FHA) domain at the N-terminus. PNK interacts with other DNA repair proteins through the FHA domain. PNK is involved in the single-strand break repair pathway and the non-homologous end joining pathway for double-strand break repair. Mutations in PNK result in neurological abnormalities.<sup>1-5</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

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

Store at -20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. 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 antibody concentration of 2.5-5.0 µg/mL is recommended using whole extracts of A549 cells.

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

#### References

1. Fanta, M., et al., *Hybridoma*, **20**, 237-242 (2001).
2. Karimi-Busheri, F., et al., *Cancer Res.*, **67**, 6619-6625 (2007).
3. Jilani, A., et al., *J. Biol. Chem.*, **274**, 24176-24186 (1999).
4. Bernstein, N.K., et al., *Anticancer Agents Med. Chem.*, **8**, 358-367 (2008).
5. Shen, J., et al., *Nat. Genet.*, **42**, 245-249 (2010).

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