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Product Information

Monoclonal Anti-TIGAR, Clone 9C10
produced in mouse, purified immunoglobulin

Product Number **T8828**

Product Description

Monoclonal Anti-TIGAR (mouse IgG2b isotype) is derived from the hybridoma 9C10 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a peptide corresponding to a fragment in exon 6-encoding region of human TIGAR (GeneID 57103).[1] The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Monoclonal Anti-TIGAR reacts with human and monkey TIGAR. The antibody may be used in various immunochemical techniques including ELISA, immunoblotting (~30 kDa), and immunoprecipitation.[1]

Cell cycle arrest, apoptosis, senescence, and differentiation are major cellular response mechanisms that prevent further proliferation of stressed or damaged cells. The main regulator of these processes is the p53 tumor-suppressor protein, a stress induced transcription factor.[2] It has been suggested that p53 determines the death or survival of a cell by regulating the intracellular reactive oxygen species (ROS) levels.[3] p53 induction was found to result in elevation of a few genes, among others a novel protein named TIGAR (**T**P53-**I**nduced **G**lycolysis and **A**poptosis **R**egulator). Its expression lowered fructose-2,6-bisphosphate levels in cells, resulting in inhibition of glycolysis and overall decrease in ROS levels. Furthermore, TIGAR knockdown sanitized cells to p53-induced death, suggesting its role as a modulator of the apoptotic response to p53.[1,4-5] TIGAR expression was found to correlate with fludarabine sensitivity in chronic lymphocytic leukemia (CLL) cells. It should be noted, however, that all patients analyzed had wild type p53, while having sensitivity to the drug. This would suggest that besides the mutational status of p53, early events in the drug action might determine cytotoxicity.[6]

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 Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store 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 2-4 μg/mL is recommended using HeLa nuclear extract.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Bensaad, K. et al., *Cell*, **126**, 107-120 (2006).
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3. Liu, B. et al., *Free Radic. Biol. Med.,* **44**, 1629-1535 (2008).
4. Green, D.R., and Chipuk, J.E., *Cell,* **126**, 30-32 (2006).
5. Corcoran, C.A. et al., *Cancer Biol. Ther.,* **5**, 1610-1613 (2006).
6. López-Guerra, M. et al., *Hematologica,* **93**, 1843-1851 (2008).

VS,DV,GG,TD,KAA,PHC,MAM 03/19-1

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