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Product Information

Anti-Growth Factor Independence-1 antibody
Mouse monoclonal
clone 2.5D.17, purified from hybridoma cell culture

Catalog Number **G6670**

Product Description

Monoclonal Anti-Growth Factor Independence-1 (GFI1) (mouse IgG1 isotype) is derived from the hybridoma 2.5D.17 produced by the fusion of mouse myeloma cells (SP2 cells) and splenocytes from BALB/c mice immunized with rat GFI1. The isotype is determined using a double diffusion immunoassay 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-Growth Factor Independence-1 (GFI1) recognizes human,[1] rat, and mouse GFI1. The antibody may be used in immunoblotting (~55 kDa),[1, 2] immunohistochemistry,[1] and EMSA (electrophoretic mobility shift analysis).[1] The antibody epitope resides within the GFI1 20-amino acid SNAG transcriptional-repression domain (amino acids 7–26 of GFI1).[1]

Growth factor independence-1 (Gfi1) and Gfi1B proteins play important roles in hematopoiesis. Mice deficient of Gfi1 display both thymic and peripherial T lymphopenia and severe abnormalities in pre-T-cell development. In humans, mutations of *Gfi1* cause defects in T lymphocyte function and development. In mice, GfiB is important for the development of megakaryocytes and in erythropoiesis. Mice that are deficient of GfiB die at embryonic day E15. Gfi1 is highly expressed in thymus while Gfi1B is the predominant factor expressed in spleen, and both are expressed in bone marrow.[1-4]

These proteins belong to the family of zinc-finger transcriptional repressors that contain the repression domain named SNAG (found in the Snail and GFI1 family of proteins). Mutations in amino acid 2 (P to A) abolish the transcriptional repression of Gfi1 and Gfi1B. Both proteins have similar zinc finger DNA binding domains; therefore, they bind the same consensus DNA sequence.

The promoters of human, rat and mouse Gfi1 gene are highly conserved in their sequence and contain Gfi recognition sequence. Therefore, Gfi1 can autoregulate its expression in T lymphocytes. The same Gfi1 DNA binding sites are targeted by GfiB to repress Gfi1 expression.[1-4]

Reagent

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

Antibody concentration: ~2 mg/mL

Precautions and Disclaimer

This product is 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 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 1-2 μg/mL is recommended using total cell extract of A549 cells.

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

References

1. Kazanjian., A. et al., *Cancer Res*., **64,** 68774-68782 (2004).
2. Doan., L.L. et al., *Nucl. Acid Res*., **32**, 2508-2519 (2004).
3. Doan., L.L. et al., J. Immunol., **170**, 2356-2366 (2003).
4. Person., R.E. et al., *Nature Genet*., **34**, 308-312 (2003).

EK,KAA,PHC,MAM 01/18-1