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Product Information

Monoclonal Anti-KLF5, clone KLF5-55
produced in mouse, purified immunoglobulin

Product Number **SAB4200338**

Product Description

Monoclonal Anti-KLF5 (mouse IgG1 isotype) is derived from the hybridoma KLF-55 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the C-terminus of human KLF5 (GeneID: 688), conjugated to KLH. The corresponding sequence is identical to monkey, bovine, chicken, rat and mouse KLF5. 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-KLF5 recognizes human, monkey, dog, hamster, mouse and rat KLF5. The antibody may be used in various immunochemical techniques including, immunoblotting (~ 55 kDa) and immunofluorescence. Staining of the KLF5 band in immunoblotting is specifically inhibited by the immunizing peptide.

The Krűppel-like factors (KLFs) comprise a family of evolutionarily conserved zinc finger transcription factors that regulate numerous biological processes including proliferation, differentiation, development and apoptosis.[1] A member of this family, KLF5, also called intestinal-enriched KLF5, is a DNA-binding transcriptional regulator that contains three independent peptide modules of the C2H2 zinc fingertype.[2] *KLF5* gene expression is well-regulated in embryos, with a higher level of expression towards the later stage of fetal development. It is widely expressed in human tissues including colon, small intestine, prostate, pancreas, kidney, skeletal muscle, lung, and breast.[3-5] KLF5 has been reported to have growth-promoting effects in cultured cells. It may function through the stimulation of cyclin D1, cyclin B1, and Cdc2 gene expression, or by mediating the inhibitory effect of retinoids on cell proliferation.[6] KLF5 was also shown to regulate the pro-proliferative and transforming activities of oncogenic H-ras.[7] In contrast to its pro-proliferative effect, deletion and down-regulation of KLF5 has been associated with prostate, breast cancer and intestinal tumorigenesis *in vivo*, suggesting its role as a tumor suppressor.[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

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

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 1.0-2.0 μg/mL is recommended using extracts of PC3 cells.

Immunofluorescence: a working antibody concentration of 2.5-5.0 μg/mL is recommended using methanol/acetone fixed PC3 cells

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

References

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GG,RC,KAA,PHC 07/11-1