

Product Information

MONOCLONAL ANTI-LEF-1 (Alternate Exon), Clone 1C3 Purified Mouse Immunoglobulin

Product Number **L 3276**

Product Description

Monoclonal Anti-LEF-1 (mouse IgG1 isotype) is derived from the 1C3 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with a recombinant full-length human LEF-1 protein. The antibody is purified from ascites fluid using Protein G chromatography.

Monoclonal Anti-LEF-1 recognizes an epitope of human LEF-1 located between amino acids 227-231. This sequence lies within the context dependent activation domain of LEF-1 and appears to be an alternate splice variant exon of the LEF-1 gene. The epitope lies within the 212-241 region of LEF-1, which is termed the alternate exon. This region is spliced out in certain isoforms of the protein.

Lymphoid enhancer factor, LEF-1, is a transcription factor of the High Mobility Group of DNA binding proteins. It is one member of a family of four proteins referred to as LEF/TCF transcription factors (LEF-1, TCF-1, TCF-3 and TCF-4). These factors play crucial roles in WNT/Wingless signaling, a signal transduction cascade that directs cell differentiation. Aberrant activation of the WNT/Wingless pathway is also a root cause in the genesis of certain cancers such as colon cancer, melanoma and breast cancer.

LEF-1 is expressed during development in many different differentiating tissues, and in a few tissues after birth. LEF-1 expression is required for proper development of breast, teeth, hair, whiskers and the trigeminal nerve. It is redundant with TCF-1 (for T-cell Factor-1) for correct development of T lymphocytes in the thymus. LEF-1 is a 399 amino acid protein (44.2 kDa). Alternative splice forms of LEF-1 and other LEF/TCF family members have been identified, but the expression pattern and relative abundance of these alternative forms have not been well studied. They can appear on immunoblots as small immunoreactive forms.

Reagent

Monoclonal Anti-LEF-1 is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.5, containing 0.08 % sodium azide.

Protein concentration is approximately 1 mg/ml.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution.

Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2 °C to 8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. 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

A working concentration of 1 µg/ml to 5 µg/ml is recommended for immunoblotting.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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3. Giese, K., et al., Functional analysis of DNA bending and unwinding by the high mobility group domain of LEF-1. *Proc. Nat'l. Acad. Sci. USA.* **94**, 12845-12850 (1997).
4. Behrens, J., et al., Functional interaction of beta-catenin with the transcription factor LEF-1. *Nature*, **382**, 638-642 (1996).
5. Giese, k., and Grosschedl, R., Lef-1 contains an activation domain that stimulates transcription only in a specific context of factor-binding sites. *EMBO J.*, **12**, 4667-4676 (1993).
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