

## Product Information

### **MONOCLONAL ANTI-LEF-1 (TRANSACTIVATION DOMAIN), Clone 3A12, Purified Mouse Immunoglobulin**

Product Number **L 3150**

#### **Product Description**

Monoclonal Anti-LEF-1 (Transactivation Domain) (mouse IgG1 isotype) is derived from the 3A12 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with a synthetic peptide corresponding to amino acids 236-242 (DTSMSRF) of human LEF-1. The antibody is purified from ascites fluid using Protein G chromatography.

Monoclonal Anti-LEF-1 (Transactivation Domain) recognizes an epitope within the transactivation domain of human LEF-1 using immunoblotting (55-57 kDa). This epitope may be missing in some splice variants.

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. 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 (Transactivation Domain) 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**

1. Eastman, Q., and Grosschedl, R., Regulation of LEF-1/TCF transcription factors by Wnt and other signals. *Curr. Opin. Cell. Biol.*, **11**, 233-240 (1999).

lpg 1/01

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.