

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LEF1 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant human (rh) TCF-1, rhTCF-2, and rhTCF-4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human LEF1 Met120-Met280 (predicted) Accession # Q9UJU2
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

LEF1 (Lymphoid Enhancer-binding Factor 1) is a functionally diverse member of the TCF/LEF family of transcription factors. The name LEF1 was originally applied to the mouse factor, while its human counterpart was named TCF-1α. Since there is a related molecule named TCF-1, to avoid confusion with TCF-1α, both species factors are now called LEF1. Although its predicted MW is 44 kDa, it runs anomalously at 35-55 kDa in SDS-PAGE. LEF1 has restricted expression in adult, being limited to T cells, thymocytes, pre-B cells and NK cells. LEF1 demonstrates sequence-specific (CCTTTG[T/A][T/A]) DNA binding and directs β-catenin to Wnt-responsive genes. Either transcriptional activation or repression may occur on LEF1 target genes, depending upon 1) the cofactors recruited to the LEF1:β-catenin complex, and 2) the phosphorylation state of LEF1. Human LEF1 is 399 amino acids (aa) in length. It contains one DNA-binding HMG-box (aa 298-369), three potential phosphorylation sites, and an N-terminal SUMOylation site at Lys27. There are at least five isoform variants. One utilizes an alternative start site at Met116, a second contains a 47 aa substitution for aa 283-299, and a third combines the previous two variations. A fourth variant shows a deletion of aa 214-241, while a fifth variant combines the afore mentioned deletion of aa 214-241 with a 25 aa substitution for aa 390-399. Over aa 120-280, human LEF1 shares 97% aa sequence identity with mouse LEF1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.