

#### DESCRIPTION

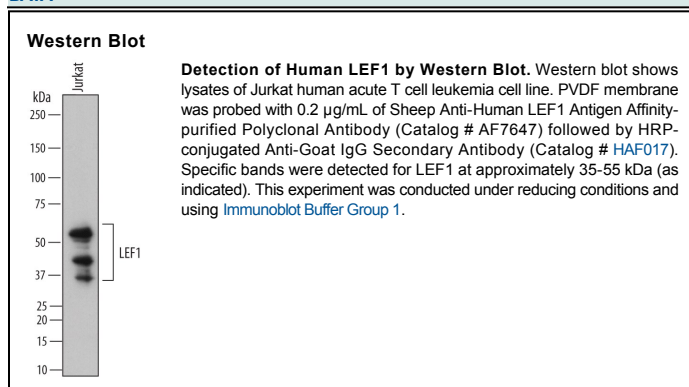
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human LEF1 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant human (rh) TCF-1, rhTCF-2, and rhTCF-4 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human LEF1 Met120-Met280 (predicted) Accession # Q9UJU2
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

#### 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.2 µg/mL	See Below

#### DATA



#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### 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.