

## Product datasheet for **RG225588**

### LEF1 (NM\_001130714) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | LEF1 (NM_001130714) Human Tagged ORF Clone                                     |
| Tag:                      | TurboGFP   |
| Symbol:                   | LEF1   |
| Synonyms:                 | LEF-1; TCF1ALPHA; TCF7L3; TCF10  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| ORF Nucleotide Sequence:  | >RG225588 representing NM_001130714<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCAACTCTCCGGAGGAGGTGGCGGCGCGGGGGACCCGGAACCTGCGCCACGGACGAGATGA  
TCCCTTCAAGGACGAGGGCGATCCTCAGAAGGAAAAGATCTTCGCCGAGATCAGTCATCCCGAAGAGGA  
AGGCGATTTAGCTGACATCAAGTCTTCTTGGTGAACGAGTCTGAAATCATCCCGCCAGCAACGGACAC  
GAGGTGGCCAGACAAGCACAAACCTCTCAGGAGCCCTACCACGACAAGGCCAGAGAACACCCCGATGACG  
GAAAGCATCCAGATGGAGGCCTCTACAACAAGGGACCCTCTACTCGAGTTATTCGGGTACATAATGAT  
GCCAAATATGAATAACGACCCATACATGTCAAATGGATCTCTTTCTCCACCCATCCCGAGAACATCAAAT  
AAAGTGCCCGTGGTGCAGCCATCCCATGCGGTCCATCCTCTACCCCCCTCATCACTTACAGTGACGAGC  
ACTTTTCTCCAGGATCACACCCGTACACATCCCATCAGATGTCAACTCCAAACAAGGCATGTCCAGACA  
TCCTCCAGCTCCTGATATCCCTACTTTTATCCCTTGTCTCCGGTGGTGTGGACAGATCACCCCACT  
CTTGGCTGGTTTTCCATCATATGATTCGGTCTCCTGGTCCCACACAACCTGGCATCCCTCATCCAG  
CTATTGTAACACCTCAGGTCAAACAGGAACATCCCACACTGACAGTGACCTAATGCACGTGAAGCCTCA  
GCATGAACAGAGAAAGGAGCAGGAGCAAAAAGACCTCACATTAAGAAGCCTCTGAATGCTTTTATGTTA  
TACATGAAAGAAATGAGAGCGAATGTCGTTGCTGAGTGTACTCTAAAAGAAAGTGCAGCTATCAACCAGA  
TTCTTGGCAGAAGGTGGCATGCCCTCTCCCGTGAAGAGCAGGCTAAATATTGAATTAGCACGGAAAGA  
AAGACAGTACATATGCAGCTTTATCCAGGCTGGTCTGCAAGAGACAATTATGGTAAGAAAAAGAAGAGG  
AAGAGAGAGAAACTACAGGAATCTGCATCAGGTGGAACGAAGCTCATTCCAACGTGCAAAGCCAAGG  
CAGCGACCCAGGACCTTCTGGAGATGGAAGCTTGT

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG225588 representing NM\_001130714  
Red=Cloning site Green=Tags(s)

MPQLSGGGGGGGDPPELCADEMIPFKDEGDPQKEKIFAEISHPEEEGDLADIKSSLVNESEIIPASNGH  
 EVARQAQTSQEPYHDKAREHPDDGKHPDGGLYNKGPSYSSYSYGYIMPMNMNDPYSNGSLSPPIRPTSN  
 KVPVVQPSHAVHPLTPLITYSDEHFSPGSHPSHIPSDVNSKQGMRSRHPAPDIPTFYPLSPGGVGQITPP  
 LGWFSHHMIPGPPGPHTTGIPHPAIVTPQVKQEHPTDSDLMHVKPQHEQRKEQEPKRPHIKKPLNAFML  
 YMKEMRANVVAECTLKESAAINQILGRRWHALSREEQAKYYELARKERQLHMQLYPGWSARDNYGKKKKR  
 KREKLQESASGGKRSSFPTCKAKAATPGPILLEMEAC

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3149\\_g10.zip](https://cdn.origene.com/chromatograms/ja3149_g10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001130714

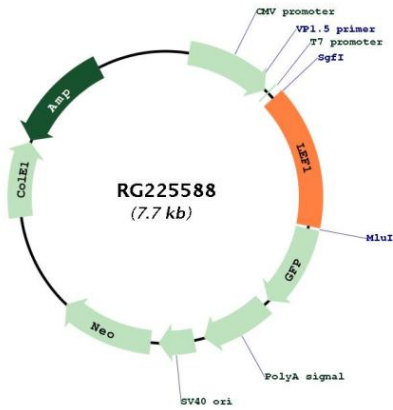
**ORF Size:** 1158 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

|                               |   |
|-------------------------------|---|
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>   |
| <b>RefSeq:</b>                | <u><a href="#">NM_001130714.2</a></u> , <u><a href="#">NP_001124186.1</a></u>   |
| <b>RefSeq Size:</b>           | 2961 bp   |
| <b>RefSeq ORF:</b>            | 1161 bp   |
| <b>Locus ID:</b>              | 51176   |
| <b>UniProt ID:</b>            | <u><a href="#">Q9UJU2</a></u>   |
| <b>Cytogenetics:</b>          | 4q25  |
| <b>Protein Families:</b>      | Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors  |
| <b>Protein Pathways:</b>      | Acute myeloid leukemia, Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Basal cell carcinoma, Colorectal cancer, Endometrial cancer, Melanogenesis, Pathways in cancer, Prostate cancer, Thyroid cancer, Wnt signaling pathway   |
| <b>Gene Summary:</b>          | This gene encodes a transcription factor belonging to a family of proteins that share homology with the high mobility group protein-1. The protein encoded by this gene can bind to a functionally important site in the T-cell receptor-alpha enhancer, thereby conferring maximal enhancer activity. This transcription factor is involved in the Wnt signaling pathway, and it may function in hair cell differentiation and follicle morphogenesis. Mutations in this gene have been found in somatic sebaceous tumors. This gene has also been linked to other cancers, including androgen-independent prostate cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2009] |

Product images:



Circular map for RG225588