

## Product datasheet for **SC316039**

### ERG (NM\_004449) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ERG (NM_004449) Human Untagged Clone
Tag:	Tag Free
Symbol:	ERG
Synonyms:	erg-3; p55
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene sequence for NM_004449 edited
ATGATTACAGACTGTCCCGGACCCAGCAGCTCATATCAAGGAAGCCTTATCAGTTGTGAGT
GAGGACCAGTCTGTTGTTTGTAGTGTGCCTACGGAACGCCACACCTGGCTAAGACAGAGATG
ACCGCGTCTCTCCAGCGACTATGGACAGACTTCCAAGATGAGCCCACGCGTCCCTCAG
CAGGATTGGCTGTCTCAACCCAGCCAGGGTACCATCAAAATGGAATGTAACCCTAGC
CAGGTGAATGGCTCAAGGAACCTCTCTGATGAATGCAGTGTGGCCAAAGCGGGAAGATG
GTGGGACGCCAGACACCGTTGGGATGAACTACGGCAGCTACATGGAGGAGAAGCACATG
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TGGAGTACAGACCATGTGCGGCAGTGGCTGGAGTGGGCGGTGAAAGAATATGGCCTTCCA
GACGTCAACATCTTGTTATTCCAGAACATCGATGGGAAGGAACTGTGCAAGATGACCAAG
GACGACTTCCAGAGGCTCACCCAGCTACAACGCCGACATCCTTCTCTCACATCTCCAC
TACCTCAGAGAGACTCCTCTCCACATTTGACTTCAGATGATGTTGATAAAGCCTTACAA
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TCAGCCTGGACCGGTACGGCCACCCACGCCAGTCGAAAGCTGCTCAACCATCTCCT
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CCAACAAGTAGCCGCTTGCAAATCCAGGCAAGTGGCCAGATCCAGCTTTGGCAGTTCCTC
CTGGAGCTCCTGTGCGACAGCTCCAACCTCCAGCTGCATCACCTGGGAAGGCACCAACGGG
GAGTTCAAGATGACGGATCCCGACGAGGTGGCCCGCGCTGGGGAGAGCGGAAGAGCAAA
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CAAACCTATCGGAGAACATGAATCAAAAGTGCCTCAAGAGGAATGAAAAAGCTTTACT
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GCAGGCATTTTGGGTAGGCGCCCTCCAGTTTTCTTTGAGTCGCGAACGCTGTGCGTTTTG
TCAGAATGAAGTATACAAGTCAATGTTTTTCCCTTTTTATATAATAATTATATAACTT
ATGCATTTATACACTACGAGTTGATCTCGGCCAGCCAAAGACACACGACAAAAGAGACAA
TCGATATAATGTGCCTTGAATTTTAACTCTGTATGCTTAATGTTTACAATATGAAGTTA
TTAGTTCTTAGAATGCAGAAATGTATGTAATAAAATAAGCTTGGCCTAGCATGGCAATCA
GATTTAAAAA
    
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_004449 unedited</p> <pre>GGACACCTGTGTATACGACTCCTATAGGGCGGCTGCGTATCTTCGGCACGAGGACTGAT TCAGACTGTCCCAGACCCAGCAGCTCATATCAAGGAAGCCTTATCAGTTGTGAGTGAGGA CCAGTCGTTGTTTGTAGTGTGCCTACGGAACGCCACACCTGGCTAAGACAGAGATGACCGC GTCCTCCTCCAGCGACTATGGACAGACTTCCAAGATGAGCCCACGCGTCCCTCAGCAGGA TTGGCTGTCTCAACCCCCAGCCAGGGTCACCATCAAAATGGAATGTAACCCTAGCCAGGT GAATGGCTCAAGGAACCTCCTGATGAATGCAGTGTGGCCAAAGCGGGAAGATGGTGGG CAGCCCAGACACCGTTGGGATGAACTACGGCAGCTACATGGAGGAGAAGCACATGCCACC CCCAAACATGACCACGAACGAGCGCAGAGTTATCGTGCCAGCAGATCCTACGCTATGGAG TACAGACCATGTGCGGCAGTGGCTGGAGTGGGCGGTGAAAGAATATGGCCTTCCAGACGT CAACATCTTGTTATTCCAGAACATCGATGGGAAGGAACTGTGCAAGATGACCAAGGACGA CTTCCAGAGGCTCACCCCAGCTACAACGCCGACATCCTTCTCTCACATCTCCACTACCT CAGAGAGACTCCTCTCCACATTTGACTTCAGATGATGTTGATAAAGCCTTACAAAACCTC TCCACGGTTAATGCATGCTAGAAAACACAGATTTACCATATGAGCCCCCAGGAGATCAGC CTGGACCGGTACGGCACCCCCACGCCAGTCAAAGCTGCTCAACCATCTCTCACAGT GCCAAAAAAGTGAAGACCAGCGTCTCAGTAGATCCTTATCAGATTCTTGACCAACCAA GTAGGCCGCTTGCAAAATCCAGC</pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' genomic read for NM_004449 unedited</p> <pre>CGGAGAAGTCACTTCGGGCCGGATGGCACTTGGGGAGGGGTACAGGGATGCCACCCGGG ATCTGTTCAGGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTT TTTTTAAATCTGATTTGCCATGCTAGGCCGAGCTTATTTTATTACATACATTCTGCATTC TAAGAACAATAACTTCATATTGTAACATTAAGCATACAGAGTTAAAATTCAGGCCAC ATTATATCGATTGTCTCTTTTGTGCGTGTCTTTGGCTGGCCGAGATCAACTCGTAGTGT ATAAATGCATAAGTTATATAATTATTATATAAAAAGGGGAAAAACATTGACTTGTATAC TTCATTCTGACAAACGCACAGCGTTTCGCGACTCAAAGGAAAACTGGAGGCCGCTACCCA AAATGCCTGCGTGATTTCTGATTGTGGCAGCCAAGAAGGCCATCTTTACCTGACCCTGT GGAGAACAAGCCCCACATAATGATGAGGTCTGAATGTTTCTTTAAATATCACACAA TTCCAGTAAAAATTTTCATTTGACAAACAAGAAAGAGATGCCATTTTTGTTTCTGAAT TCTACTACTTCCCCTTTCTCCATTACGCTGTGTCCTTTCTCCTAACACTGGGTTTGGTAT AACACTGACTGCATGAACCCCTCGAGTCTCATAAECTATTGTACACAGTCCCCAAATGTC CTGAGTCCAGTCTTCATTGCTTGAGAAGTTTCTTTAGCAGACCCTGGTCTGCTCCTTCTC TGCTGTTGCCTCCTCTTCTTACCCCTCTGTCTACAATCACACGCTCACTCTATACAC ATCTCAGATCCCACCTTTTAGTTCATAGTGCCCGTCATACTGTAAGCAGTTCGAAACTT TCGGGTCACTTTACCAGTTTGAGCAAGC</pre>
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_004449
<b>Insert Size:</b>	2800 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_004449.3](#), [NP\\_004440.1](#)

**RefSeq Size:** 3097 bp

**RefSeq ORF:** 1389 bp

**Locus ID:** 2078

**UniProt ID:** [P11308](#)

**Cytogenetics:** 21q22.2

**Domains:** ETS, SAM\_PNT

**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** This gene encodes a member of the erythroblast transformation-specific (ETS) family of transcription factors. All members of this family are key regulators of embryonic development, cell proliferation, differentiation, angiogenesis, inflammation, and apoptosis. The protein encoded by this gene is mainly expressed in the nucleus. It contains an ETS DNA-binding domain and a PNT (pointed) domain which is implicated in the self-association of chimeric oncoproteins. This protein is required for platelet adhesion to the subendothelium, inducing vascular cell remodeling. It also regulates hematopoiesis, and the differentiation and maturation of megakaryocytic cells. This gene is involved in chromosomal translocations, resulting in different fusion gene products, such as TMPSSR2-ERG and NDRG1-ERG in prostate cancer, EWS-ERG in Ewing's sarcoma and FUS-ERG in acute myeloid leukemia. More than two dozens of transcript variants generated from combinatorial usage of three alternative promoters and multiple alternative splicing events have been reported, but the full-length nature of many of these variants has not been determined. [provided by RefSeq, Apr 2014]

Transcript Variant: This variant (2) lacks an in-frame exon compared to variant 3. The resulting protein (isoform 2) is shorter when it is compared to isoform 3. Sequence Note: The RefSeq transcript and protein were derived from transcript and genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.