

## Product datasheet for SC118911

### Neutrophil Elastase (ELANE) (NM\_001972) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neutrophil Elastase (ELANE) (NM_001972) Human Untagged Clone
Tag:	Tag Free
Symbol:	Neutrophil Elastase
Synonyms:	ELA2; GE; HLE; HNE; NE; PMN-E; SCN1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118911 sequence for NM_001972 edited (data generated by NextGen Sequencing)

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ATGACCCTCGGCCGCGACTCGCGTGTCTTTTCCTCGCCTGTGCTGCCGGCCTTGCTG
CTGGGGGGCACCGCGCTGGCCTCGGAGATTGTGGGGGGCCGGCGAGCGCGCCACGCG
TGGCCCTTCATGGTGTCCCTGCAGCTGCGCGGAGGCCACTTCTGCGGCGCCACCCTGATT
GCGCCCAACTTCGTATGTGGCCGCGCACTGCGTGGCGAATGTAACGTCCGCGCGGTG
CGGGTGGTCTGGGAGCCATAACCTCTCGCGGCGGGAGCCACCCGGCAGGTGTTCCGC
GTGCAGCGCATCTCGAAAACGGCTACGACCCCGTAAACTTGCTCAACGACATCGTGATT
CTCCAGCTCAACGGTTCGGCCACCATCAACGCCAACGTGCAGGTGGCCAGCTGCCGGCT
CAGGGACGCCCTGGGCAACGGGTGCAGTGCCTGGCCATGGGCTGGGGCCTTCTGGG
AGGAACCGTGGGATCGCCAGCGTCTGCAGGAGCTCAACGTGACGGTGGTGACGTCCCTC
TGCCGTGCAGCAACGTCTGCACTCTCGTGAGGGGCCGGCAGGCCGGCGTCTGTTTCGGG
GACTCCGGCAGCCCTTGGTCTGCAACGGGCTAATCCACGGAATTGCCTCCTTCGTCGG
GGAGGCTGCGCCTCAGGGCTCTACCCCGATGCCTTTGCCCGGTGGCACAGTTTGTAAAC
TGGATCGACTCTATCATCCAACGCTCCGAGGACAACCCCTGTCCCAACCCCGGGACCCG
GACCCGGCCAGCAGGACCACTGA

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Clone variation with respect to NM\_001972.2



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_001972 unedited            GTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACCCAGGCCGGGCGGGCACGGAGG            GGCAGAGACCCCGGAGCCCCAGCCCCACCATGACCCTCGGCCCGGACTCGCGTGTCTTT            TCCTCGCTGTGTCTGCCGGCCTTGCTGCTGGGGGACCCGCGTGGCCTCGGAGATTG            TGGGGGCGCGGAGCGCGGCCACCGGTGGCCCTTCATGGTGTCCCTGCAGCTGCGCG            GAGGCCACTTCTGCGGCGCCACCTGATTGCGCCAACTTCGTATGTCGGCCCGCACT            GCGTGGCGAATGTAACAGTCCGCGCGGTGCGGGTGGTCCCTGGGAGCCCATAACCTCTCGC            GGCGGGAGCCACCCGGCAGGTGTTCCCGTGCAGCGCATCTTCGAAAACGGCTACGACC            CCGTAAACTTGCTCAACGACATCGTGATTCTCCAGCTCAACGGGTGCGCCACCATCAACG            CCAACGTGCAGGTGGCCAGCTGCCGGCTCAGGGACGCCGCTGGGCAACGGNGTGCAGT            GCCTGGCCATGGGCTGNNGCCTTTCTGGCAGGAACCGTGGGATCNGCAGCGTCTGCAGG            AGCTCAACGTGACGGTGGTACGTCCTCTGCCGTGCAGCAACGTCTGCACTCTCGTGA            GGGGCCNCGAGCCCGCGTCTGNNTTCGGGGACTCCNGCAGCCCTGGGTCTGNCACGGG            CTAATCCACGGAANTGGCTCCTTCGTCCGGGGAGGCTGCGCCTCCAGGCCTCTACCCCG            ATGCCCTTGCCCGTGGNCACACGTTGTAACACTGGATCGACTTCTATATCCAACGCTCC            GGAGACAACCCCTGTCCCAACCCCGGAACCCGGACCCGCAAAAGGACCACTTGAAAGG            TCTGCCCGGGTACCTAAGTTGGCCCAACCCACCTCTCAAGATTGGACCATAACATTTTGG            TTTGTAATAAAAAAAAAAAAAAAAAACATCATCTTAATGGGGCCGGGCTTAATTGTTCTGT            ACATACCCGGGGGACCTTGACTCTCCAGGGTCCGTGG</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_001972 unedited            GGCCCGGGGGNNNNNNNNNNNTTTANNNNNNNCGGTNTTACTCTGANCCGCGGNCCG            ATACNAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTTACAAAATAAAAAGTTTATTGT            GCCAGATGCTGGAGAGTGTGGGTGTGGCAGCTGAGGTGACCCGGGCAGCCCTTCTCAGT            GGGTCTGCTGGCCGGTCCGGGTCCCGGGGTGGGGACAGGGGTGTCTCGGAGCGTT            GGATGATAGAGTCGATCCAGTTTACAACTGTGCCACCCGGGGCAAAGGCATCGGGGTAGA            GCCCTGAGGCGCAGCCTCCCGGACGAAGGAGGCAATTCGTTGATTAGCCCGTTGCAGA            CCAAGGGGCTGCCGGAGTCCCGAAACAGACGCCGGCCTGCCGGCCCTCACGAGAGTGC            AGACGTTGCTTGCAGCGCAGAGGGACGTTACCACCGTCACGTTGAGCTCCTGCAGGAAC            CTGGCGAAACCCACGTTCTGCCAAAAGCCCCACCCATGGGCCCGGCCCTTGCCCCCT            TTGCCCAAGCGGGTCCCTTAACCGTACATTTGGGCCCCCTGCACCTTTGGGGTTTGA            AGGGGGCCCAACCCCTTCTCATTTCTGAAAAAAAAATAATTTTTTAAAAAATTTTCGGGG            GGGCTAACCTTTTTAAAAATCCCTTTGTGGGAAAAAACCCCGCGGTGGGCCCCCTC            CCCCCAGAAGGGTTTGGTGGTTAAAAAAAACCCCCCTCGTGGGGGGTTTTTATTT            CTTTCCCCCGAGGGGCGGGCCAAAAAAAATAAGGGCACCCCAACGGGGGGG            GTGGCCCAATATAACGTTTTCCCTCCCTCTTTGTGGCGGCACCACAAAATATAGCA            CCCTCCCGTGGGGCGCTTCTCCCTTCTCCCCCTC</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_001972
<b>Insert Size:</b>	804 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>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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001972.2</a> , <a href="#">NP_001963.1</a>
<b>RefSeq Size:</b>	938 bp
<b>RefSeq ORF:</b>	804 bp
<b>Locus ID:</b>	1991
<b>UniProt ID:</b>	<a href="#">P08246</a>
<b>Cytogenetics:</b>	19p13.3
<b>Domains:</b>	Tryp_SPc
<b>Protein Families:</b>	Protease, Transmembrane
<b>Protein Pathways:</b>	Systemic lupus erythematosus
<b>Gene Summary:</b>	Elastases form a subfamily of serine proteases that hydrolyze many proteins in addition to elastin. Humans have six elastase genes which encode structurally similar proteins. The encoded preproprotein is proteolytically processed to generate the active protease. Following activation, this protease hydrolyzes proteins within specialized neutrophil lysosomes, called azurophil granules, as well as proteins of the extracellular matrix. The enzyme may play a role in degenerative and inflammatory diseases through proteolysis of collagen-IV and elastin. This protein also degrades the outer membrane protein A (OmpA) of E. coli as well as the virulence factors of such bacteria as Shigella, Salmonella and Yersinia. Mutations in this gene are associated with cyclic neutropenia and severe congenital neutropenia (SCN). This gene is present in a gene cluster on chromosome 19. [provided by RefSeq, Jan 2016]