

## Product datasheet for **SC309043**

### IRE1 (ERN1) (NM\_001433) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IRE1 (ERN1) (NM_001433) Human Untagged Clone
Tag:	Tag Free
Symbol:	IRE1
Synonyms:	hIRE1p; IRE1; IRE1a; IRE1P
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:** >OriGene ORF within SC309043 sequence for NM\_001433 edited (data generated by NextGen Sequencing)

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ATGCCGGCCCGCGGCTGCTGCTGCTGCTGACGCTGCTGCTGCCCGCCTCGGGATTTTTGGAAGTACCA
GCACAGTGACGCTTCTGAAACCTTGTGTTTGTGTCAACGCTGGATGGAAGTTGCATGCTGTCAGCAA
GAGGACAGGCTCAATCAAATGGACTTTAAAAGAAGATCCAGTCTGCAGGTCCCAACACATGTGGAAGAG
CCTGCCTTTCTCCAGATCCTAATGATGGCAGCCTGTATACGCTTGAAGCAAGAATAATGAAGGCCTGA
CGAAACTTCTTTTACCATCCCAGAATTGGTGCAGGCATCCCCATGCCGAAGTTCAGATGGAATCCTCTA
CATGGGTAAGCAGGACATCTGGTATGTTATTGACCTCCTGACCGGAGAGAAGCAGCAGACTTTGTCA
TCGGCCTTTGAGATAGTCTCTGCCATCAACCTCTTCTGTATCTTGGGCGAACAGAATACACCATCA
CCATGTACGACACAAAACCCGAGAGCTCCGGTGAATGCCACCTACTTTGACTATGCGGCCTCACTGCC
TGAGGACGACGTGGACTACAAGATGTCCACTTTGTGTCCAATGGTATGGGCTGGTGGTACTGTGGAC
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GGGAGGCTCTGAGGAAGGTGATGCACATCAATGTCGCTGTGGAGACCCTGCGCTATCTGACCTTCATGTC
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ACCAGCGTGGTATAGTTGGGAAAATTTCTTCTGTCCCAAGGATGTCTGGGCCATGGAGCTGAGGGCA
CAATTGTGTACCGGGCATGTTTGAACAACCGCAGCTGGCCGTGAAGAGGATCTCCCGAGTGTTTTAG
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GCACACGGCAAGATCAAGGCCATGATCTCCGACTTTGGCCTCTGCAAGAAGCTGGCAGTGGGCGAGACACA
GTTTCAGCCGCGCATCTGGGGTGCCTGGCACAGAAGGCTGGATCGCTCCAGAGATGCTGAGCGAAGACTG
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GGCAGCCACCCCTTTTGGCAAGTCCCTGCAGCGGACGGCCAACATCCTCCTGGGTGCCTGCAGCCTTGACT
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TAAATTCAGGACCTATAAAGGTGGTTCTGTGAGAGATCTCCTCCGAGCCATGAGAAATAAGAAGCACCCAC
TACCGGGAGCTGCCTGACAGAGTGCAGGAGACGCTGGGGTCCCTCCCCGACGACTTCGTGTGCTACTTCA
CATCTCGCTTCCCCACCTCCTCGCACACACCTACCGGGCCATGGAGCTGTGCAGCCACGAGAGACTCTT
CCAGCCCTACTACTTCCACGAGCCCCCAGAGCCCCAGCCCCAGTACTCCAGACGCCCTTGA
    
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Clone variation with respect to NM\_001433.4  
 651:a=>g 978:c=>t 2475:c=>t

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_001433 unedited GAGGTCATTATTGTATACGACTCACTATAGGCGGCCGCGAATCGCCCCGTCTGTCCG TACCGCCCCGGAGCCAGGGCCGAGTCCTCGCCATGCCGGCCCGCGGCTGCTGTGCTG CTGACGCTGCTGCTGCCCGGCTCGGGATTTTTGGAAGTACCAGCACAGTGACGCTTCT GAAACCTGTGTTTGTGTCAACGCTGGATGGAAGTTTGCATGCTGTGAGCAAGAGGACA GGCTCAATCAAATGGACTTTAAAAGAAGATCCAGTCTGCAGGTCCCAACACATGTGGAA GAGCCTGCCTTTCTCCAGATCCTAATGATGGCAGCCTGTATACGCTTGGAAAGCAAGAAT AATGAAGGCCTGACGAACTTCTTTTACCATCCAGAATTGGTGCAGGCATCCCCATGC CGAAGTTCAGATGGAATCCTCTACATGGGTAAAAAGCAGGACATCTGGTATGTTATTGAC CTCCTGACCGGAGAGAAGCAGCAGACTTTGTCATCGGCCTTTCAGATAGTCTCTGCCCA TCAACCTCTCTTGTATCTTNGCGAACAGAATACACCATCACCATGTACGACACCAAA ACCCGAGAGCTCCGGTGGAAATGCCACCTACTTTGACTATGCGGCCTCACTGCCTGAGGAC GACGTGGACTACAAGATGTCCACTTTGTGTCGAATGGTATGGGCTGGTGGTACTGTG GACAGTGAATCTGGGACGTCTATGGATCCCAAACACGCTCCCTGTGGTGGCCTTT TATGTCTGGCACCAGGGTCTGAAGAAAGTGATGCACATCAATGTCGCTGTGGAGACC CTGCGCTATCTGACCTTTATGTCTGGGGAGGGTGGGGCCGATCACAAAGTGG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001433
<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<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).
<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>	<a href="#">NM_001433.2</a> , <a href="#">NP_001424.2</a>
<b>RefSeq Size:</b>	7910 bp

RefSeq ORF:	2934 bp
Locus ID:	2081
UniProt ID:	<u><a href="#">O75460</a></u>
Cytogenetics:	17q23.3
Domains:	pkinase, TyrKc, S_TKc, PQQ, PUG
Protein Families:	Protein Kinase, Transmembrane
Protein Pathways:	Alzheimer's disease
Gene Summary:	<p>This gene encodes the transmembrane protein kinase inositol-requiring enzyme 1. The encoded protein contains two functional catalytic domains, a serine/threonine-protein kinase domain and an endoribonuclease domain. This protein functions as a sensor of unfolded proteins in the endoplasmic reticulum (ER) and triggers an intracellular signaling pathway termed the unfolded protein response (UPR). The UPR is an ER stress response that is conserved from yeast to mammals and activates genes involved in degrading misfolded proteins, regulating protein synthesis and activating molecular chaperones. This protein specifically mediates the splicing and activation of the stress response transcription factor X-box binding protein 1. [provided by RefSeq, Aug 2017]</p> <p>Transcript Variant: This variant (1) consists of multiple exons and encodes the longer isoform (1).</p>