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Product datasheet for MC222914

Ern1 (NM_023913) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ern1 (NM_023913) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ern1
Synonyms:	9030414B18Rik; AI225830; C85377; Ire1a; Ire1alpha; Ire1p
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>MC222914 representing NM_023913
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGGCCCGGTGGCTGTTGCTCCTGCTGGCGCTGCTGCTACCGCCGCCCGGCCCCGGGAGTTTTGGAA
GAACCAGCACAGTTACACTGCCTGAGACCTTGTTGTTTGTCTCGACCCTGGATGGAAGCTTGCATGCTGT
TAGCAAGAGGACGGGCTCCATCAAGTGGACTTTAAAAGAAGATCCAGTCCTGCAGGTCCCAACACACGTG
GAAGAGCCGGCTTTCCTCCCAGATCCCAATGATGGCAGTCTGTACACACTTGGAGGCAAGAACAACGAAG
GCCTGACGAAACTTCCCTTTACCATCCCAGAATTGGTTCAGGCCTCCCCATGCCGAAGTTCAGATGGAAT
CCTCTACATGGGTAAAAAGCAAGATATTTGGTATGTTATCGACCTCCTGACTGGCGAGAAGCAGCAGACT
TTGTCATCGGCCTTTGCTGATAGTCTCTGCCCATCAACTTCCCTTCTATATCTTGGACGGACAGAATACA
CCATCACCATGTATGACACCAAGACCCGGGAGCTCCGCTGGAATGCCACCTATTTTGACTATGCAGCCTC
ACTGCCGGAAGACGACGTGGACTACAAGATGTCCCACTTTGTGTCCAATGGCGATGGACTGGTGGTAACT
GTGGACAGTGAATCTGGGGATGTCCTGTGGATCCAAAACTATGCCTCTCCTGTGGTGGCCTTCTACGTCT
GGCAGGGGGAGGTCCTGAGAAAGGTGGTGCACATCAACGTTGCTGTGGAGACTCTACGCTACTTGACCTT
CATGTCTGGGGAAGTGGGGCGCATCACCAAGTGGAAGTATCCATTCCCCAAGGAGACAGAGGCCAAGAGC
AAGCTAACGCCTACTCTGTATGTTGGGAAGTATTCCACCAGCCTCTATGCCTCTCCCTCAATGGTGCATG
AGGGGGTTGCTGTCGTGCCTCGAGGCAGCACTCTTCCTTTGCTGGAAGGCCCCCAGACAGATGGCGTCAC
CATTGGAGACAAAGGAGAGTGTGTGATCACTCCCAGCACAGACCTCAAGTTTGACCCTGGACTCAAAGGG
AAGAGCAAGCTGAACTACTTGAGGAATTACTGGCTTCTCATAGGACACCATGAAACTCCTCTGTCTGCAT
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AGAAAAAAGGAGCTTTGAGGAAGTTATCAACATAGTTGGCCAGACTTCAGACAACACACCGACCACCGTA
TCTCAGGATGTGGAGGAGAAGCTCGCTCGCGCCCCTGCCAAGCCTGAGGCCCCCGTGGACTCCATGCTCA
AGGACATGGCTACCATTATCCTGAGCACCTTCCTGCTGGTTGGATGGGTGGCGTTCATCATCACTTACCC
CCTGAGCGTGCATCAGCAGCGTCAGCTCCAGCACCAACAGTTCCAGAAGGAGCTGGAGAAGATTCAGCTC
CTGCAGCAGCAGCAGCTGCCCTTCCACCCACACGGAGACCTTACCCAGGACCCTGAGTTCCTGGATTCAT
CTGGCCCCTTCTCAGAGAGCTCTGGCACCAGCAGCCCCAGCCCATCCCCCAGAGCCTCCAACCACTCCCT
CCACCCCAGCAGCTCTGCCTCCAGGGCCGGCACCAGCCCCTCTCTGGAGCAGGATGATGAGGATGAGGAA
ACCAGAATGGTGATTGTTGGGAAAATTTCATTCTGCCCCAAGGATGTCCTGGGTCATGGAGCTGAGGGCA
CAATTGTATACAAAGGTATGTTTGACAACCGAGATGTGGCCGTGAAGAGGATCCTCCCTGAGTGTTTTAG
CTTTGCCGACCGTGAGGTCCAGCTGCTTCGAGAATCAGACGAGCACCCAAATGTGATCCGCTACTTTTGC
ACAGAGAAGGACCGGCAGTTCCAGTACATTGCTATCGAGCTGTGTGCAGCCACCCTACAAGAGTATGTGG
AGCAGAAGGACTTTGCCCACCTTGGCCTCGAGCCCATCACCCTGCTTCATCAGACCACCTCAGGCCTGGC
ACACCTGCATTCTCTCAACATTGTTCACAGAGACCTGAAGCCCCACAACATTCTCCTCTCCATGCCCAAC
GCACATGGCAGGATCAAGGCGATGATCTCTGACTTTGGCCTCTGCAAGAAGCTGGCAGTGGGCAGGCACA
GTTTCAGCCGCCGTTCAGGGGTACCTGGCACTGAAGGGTGGATCGCCCCAGAGATGCTGAGTGAAGACTG
TAAGGACAACCCTACCTACACGGTGGACATCTTTTCTGCAGGCTGTGTCTTTTACTATGTCATCTCTGAG
GGCAACCATCCTTTTGGCAAATCCTTGCAGCGGCAGGCCAACATCCTCCTGGGCGCCTGCAACCTTGACT
GTTTCCACTCAGACAAGCATGAGGACGTCATTGCTCGTGAATTGATAGAGAAAATGATTGCTATGGATCC
CCAGCAGCGTCCCTCTGCAAAGCACGTGCTGAAACACCCCTTCTTCTGGAGCCTGGAGAAGCAGCTCCAG
TTTTTCCAGGATGTAAGTGACCGAATAGAAAAGGAGGCCTTGGACGGTCCAATCGTACGGCAGTTGGAGA
GAGGCGGGAGAGCTGTGGTCAAGATGGACTGGCGGGAGAACATCACTGTCCCCCTGCAGACAGATCTGCG
CAAATTCAGAACCTACAAAGGTGGCTCTGTGAGAGACCTCCTCCGAGCCATGAGAAACAAGAAACACCAC
TACCGGGAGCTCCCCGTGGAGGTTCAGGAGACGCTGGGCTCCATCCCGGATGACTTTGTGCGCTACTTCA
CTTCCCGCTTCCCCCACCTCCTCTCTCACACCTACCAAGCCATGGAGCTGTGCAGACATGAGAGACTCTT
TCAGACCTACTACTGGCACGAGCCCACAGAACCCCAGCCTCCAGTGATTCCATATGCCCTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms:	https://cdn.origene.com/chromatograms/ja1257_a01.zip
Restriction Sites:	SgfI-MluI
ACCN:	NM_023913
Insert Size:	2934 bp
OTI Disclaimer:	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).
Components:	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_023913.2, NP_076402.1
RefSeq Size:	3976 bp
RefSeq ORF:	2934 bp
Locus ID:	78943
UniProt ID:	Q9EQY0
Cytogenetics:	11 E1
Gene Summary:	Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR) (PubMed:11850408, PubMed:25164867). In unstressed cells, the endoplasmic reticulum luminal domain is maintained in its inactive monomeric state by binding to the endoplasmic reticulum chaperone HSPA5/BiP. Accumulation of misfolded protein in the endoplasmic reticulum causes release of HSPA5/BiP, allowing the luminal domain to homodimerize, promoting autophosphorylation of the kinase domain and subsequent activation of the endoribonuclease activity (PubMed:25164867). The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA (PubMed:11850408, PubMed:25164867). The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes (PubMed:11850408, PubMed:25164867). Acts as an upstream signal for ER stress-induced GORASP2-mediated unconventional (ER/Golgi-independent) trafficking of CFTR to cell membrane by modulating the expression and localization of SEC16A (By similarity).[UniProtKB/Swiss-Prot Function]