Recombinant Human ERN1 Protein (S24-V390), His tagged

Cat. No. ERN1-1111H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-TEV-IRE1a(S24-V390)(C148S, C332S) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	S24-V390
Description	Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR). 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 proteins 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. The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA. The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes. 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.
Form	Liquid

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Endotoxin	< 0.01 EU per μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	ERN1 endoplasmic reticulum to nucleus signaling 1 [Homo sapiens (human)]
Official Symbol	ERN1
Synonyms	ERN1; endoplasmic reticulum to nucleus signaling 1; ER to nucleus signalling 1; serine/threonine-protein kinase/endoribonuclease IRE1; inositol requiring enzyme 1; IRE1; IRE1P; ire1-alpha; inositol-requiring 1; inositol-requiring enzyme 1; inositol-requiring protein 1; protein kinase/endoribonuclease; endoplasmic reticulum-to-nucleus signaling 1; IRE1a; hIRE1p; FLJ30999; MGC163277; MGC163279;
Gene ID	2081
mRNA Refseq	NM_001433
Protein Refseq	NP_001424

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MIM	604033
UniProt ID	O75460

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