

Recombinant Human ERN1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. ERN1-3883H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	ERN1 MS Standard C13 and N15-labeled recombinant protein (NP_001424) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	109.6 kDa
AA Sequence	MPARRLLLLLTLPLGLGIFGSTSTVTLPETLLFVSTLDGSLHAVSKRTGSIKWTLKED PVLQVPPTHVEEPAFLPDPNDGSLYTLGSKNNEGLTKLPFTIPELVQASPCRSSDGILY MGKKQDIWYVIDLLTGEKQQTLSSAFADSLCPSTSLLYLGRTEYTITMYDTKTRELR WNATYFDYAASLPEDDVDYKMSHFVSNGDGLVVTVDSESGDVLWIQNYASPVVAF

 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

YVWQREGLRKVMHINVAVETLRYLTFMSGEVGRITKWKYPFPKETEAKSKLTPTLYV
 GKYSTSLYASPSMVHEGVAVVPRGSTLPLLEGPQTDGVTIGDKGECVITPSTDVKFD
 PGLKSKNKNLYLRNYWLLIGHHETPLSASTKMLERFPNNLPKHRENVIPADSEKKSF
 EEVINLVDQTSENAPTTVSRDVEEKPAHAPARPEAPVDSMLKDMATIILSTFLLIGWV
 AFIIITYPLSMHQQQQLQHQQFQKELEKIQLLQQQQQQLPFHPPGDTAQDGELLDT
 GPYSESSGTSSPSTSPRASNHSLCSGSSASKAGSSPSLEQDDGDEETSVVIVGKISF
 CPKDVLGHGAEGTIVYRGMFDNRDVAVKRILPECFSFADREVQLLRESDEHPNVIRY
 FCTEKDRQFQYIAIELCAATLQEYVEQKDFAHLGLEPITLLQQTTSGLAHLHSLNIVHR
 DLKPHNILISMPNAHGKIKAMISDFGLCKKLAVGRHSFSRRSGVPGTEGWIAPEMLS
 EDCKENPTYTVDIFSAGCVFYVISEGSHPFSGSLQRQANILLGACSLDCLHPEKHE
 DVIARELIEKMIAMDPQKRPSAKHVLKHPFFWSLEKQLQFFQDVSDRIEKESLDGPIV
 KQLERGGRAVVKMDWRENITVPLQTDLRKFRTYKGGSVRDLLRAMRNKKHHYREL
 PAEVRETLGSLPDDFVCYFTSRFPHLLAHTYRAMELCSHERLFQPYFHEPPEPQP
 PVTPDALTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity

> 80% as determined by SDS-PAGE and Coomassie blue staining

Stability

Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage

Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration

50 µg/mL as determined by BCA

Storage Buffer

100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name

ERN1 endoplasmic reticulum to nucleus signaling 1 [Homo sapiens (human)]

Official Symbol

ERN1

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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
MIM	604033
UniProt ID	O75460
SDS-PAGE	