

# Recombinant Human endoribonuclease IRE1/ERN1 Protein

Catalog No.: RP02121LQ Recombinant

# **Sequence Information**

**Species Gene ID Swiss Prot** Human 2081 075460-1

**Tags** No tag

**Synonyms** 

ERN1;IRE1;IRE1P;IRE1a;hIRE1p; IRE1P; IRE1a; hIRE1p

### **Product Information**

**Source** Purification
Baculovirus-Insect > 80% by SDSCells PAGE.

Calculated MW Observed MW

Endotoxin

< 1.0 EU/ $\mu$ g of the protein by LAL method

**Formulation** 

Supplied as sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4.

Reconstitution

# **Background**

Endoplasmic reticulum stress and hypoxia are necessary components of malignant tumors growth and suppression of ERN1 (from endoplasmic reticulum to nuclei-1) signalling pathway, which is linked to the apoptosis and cell death processes, significantly decreases proliferative processes. An enhanced expression of TP53 gene in ERN1 knockdown glioma cells correlates with the decreased level of ubiquitin ligase MDM2 and increased expression level of USP7 which deubiquitinates TP53 and MDM2 and induces TP53-dependent cell growth repression and apoptosis. Thus, the expression of genes encoding TP53 and related to TP53 factors depends upon the endoplasmic reticulum stress signaling as well as on hypoxia, and correlates with suppression of glioma growth under ERN1 knockdown. The dependence of insulin-like growth binding proteins as well as IGF2BP3 and HTRA1 gene expressions in U87 glioma cells on ERN1 signaling enzyme function and hypoxia, indicating its participation in the regulation of metabolic and proliferative processes via IGF/INS receptors, because endoplasmic reticulum stress is an important component of tumor growth and metabolic diseases.

## **Basic Information**

#### **Description**

Recombinant Human endoribonuclease IRE1/ERN1 Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Pro465-Leu977) of human endoribonuclease IRE1/ERN1 (Accession #NP\_001424.3) fused with no additional amino acid.

## **Bio-Activity**

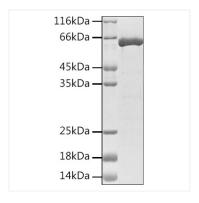
## **Storage**

Store at -70°C. This product is stable at  $\leq$  -70°C for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature. Avoid repeated freeze-thaw cycles. Avoid repeated freeze/thaw cycles.

#### **Contact**

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# **Validation Data**



Recombinant Human endoribonuclease IRE1/ERN1 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 65 kDa.