

RP02121LQ

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Recombinant Human endoribonuclease IRE1/ERN1 Protein

Catalog No.: RP02121LQ **Recombinant**

Sequence Information

Species Gene ID Swiss Prot

Baculovirus- 2081 O75460-1
Insect Cells

Tags

No tag

Synonyms

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

Product Information

Source Purification

Baculovirus-Insect Cells ≥ 80 % as determined by SDS-PAGE.

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

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

Reconstitution

Contact



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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

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Operational Notes

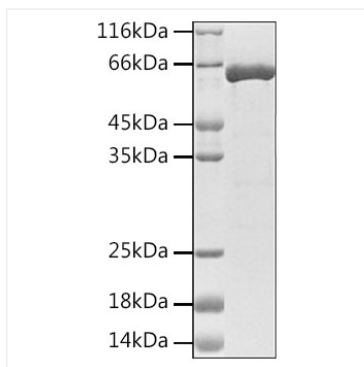
For your safety and health, please wear a lab coat and disposable gloves for handling.

Storage

Store at -70°C. This product is stable at ≤ -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.

* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Human endoribonuclease IRE1/ERN1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.