Recombinant human NHEJ1 protein

Catalog Number: ATGP1684

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-224aa

UniProt No.
Q9H9Q4

NCBI Accession No.
NP_079058

Alternative Names
Non-homologous end-joining factor 1, XLF

PRODUCT SPECIFICATION

Molecular Weight
27.8 kDa (247aa) confirmed by MALDI-TOF

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol,1mM DTT

Purity
> 90% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
Non-homologous end-joining factor 1, also known as NHEJ1, belongs to the XLF family. NHEJ1 was originally discovered as the protein mutated in five patients with growth retardation, microcephaly, and immunodeficiency. The protein is required for the non-homologous end joining (NHEJ) pathway of DNA repair. Patients with NHEJ1 mutations also have immunodeficiency due to a defect in V (D) J recombination, which utilizes NHEJ to promote immune system diversity. XLF interacts with DNA ligase IV and XRCC4 and is thought to be involved in the ligation step of NHEJ. Recombinant human NHEJ1 protein, fused to His-tag at N-terminus, was

expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

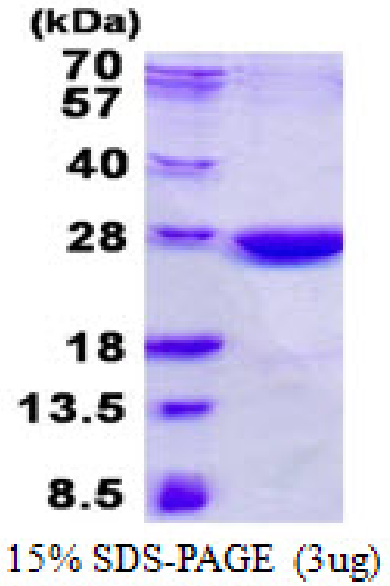
MGSSHHHHHH SSGLVPRGSH MGSMEELEQG LLMQPWAWLQ LAENSLLAKV FITKQGYALL VSDLQQVWHE QVDTSVVSQR AKELNKRLTA PPAAFLCHLD NLLRPLLKDA AHPSEATFSC DCVADALILR VRSELSGLPF YWNFHCMLAS PSLVSQHLIR PLMGMSLALQ CQVRELATLL HMKDLEIQDY QESGATLIRD RLKTEPFEEN SFLEQFMIEK LPEACSIGDG KPFVMNLQDL YMAVTTQ

General References

Buck D., et al. (2006) Cell. 124:287-299
Ahnesorg P., et al. (2006) Cell. 124:301-313

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.