

Recombinant Human RED Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50838

Size: 10ug, 100ug

Protein Name: Protein Red (Cytokine IK) (IK factor) (Protein RER)

Synonym: IK, RED, RER

UniProt ID: Q13123

UniProt Link: www.uniprot.org/uniprotkb/Q13123/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 557 AA

Molecular Weight: 66 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPERDSEPFNSNPLAPDGHVDVDDPHSFHQSKLTNEDFRKLLMTPRAAPTSAPPSKSRHHEMPREYN
EDEDPAARRRKKKSYYAKLRQQEIERERELAEKYRDRAKERRDGVNKDYEETELISTTANYRAVGPT
AEADKSAAEKRRQLIQESKFLGGDMEHTHLVKGLDFALLQKVRAEIASKEKEEEEELMEKPQKETKKD
EDPENKIEFKTRLGRNVYRMLFKSKAYERNELFLPGRMAYVVDLDDEYADTDIPTTLIRSKADCPTME
AQTTLTNDIVISKLTQILSYLRQGTRNKKLKKDKGKLEEKPPPEADMNIFEDIGDYVPSTTKTPRDK
ERERYRERERDRERDRDRDRERERERERDREREREREREREKRRHSYFEKPKVDDEPMDVDKGP
GSTKELIKSINEKFAGSAGWEGTESLKKPEDKKQLGDDFFGMSNSYAECYPATMDDMAVDSDEEVDY
SKMDQGNKKGPLGRWDFDTQEEYSEYMNNKEALPKAAFQYGIKMSEGRKTRRFKETNDKAELDRQ
WKKISAIIEKRKKMEADGVEVKRPKY

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Protein Red (Cytokine IK) (IK factor) (Protein RER) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Involved in pre-mRNA splicing as a component of the spliceosome (PubMed:28781166). Auxiliary spliceosomal protein that regulates selection of alternative splice sites in a small set of target pre-mRNA species (Probable). Required for normal mitotic cell cycle progression (PubMed:22351768, PubMed:24252166). Recruits MAD1L1 and MAD2L1 to kinetochores, and is required to trigger the spindle assembly checkpoint (PubMed:22351768). Required for normal accumulation of SMU1 (PubMed:24945353).; (Microbial infection) Required, together with SMU1, for normal splicing of influenza A virus NS1 pre-mRNA, which is required for the production of the exportin NS2 and for the production of influenza A virus particles. Not required for the production of VSV virus particles.

Subcellular Localization: Nucleus . Nucleus, nucleoplasm . Chromosome . Cytoplasm, cytoskeleton, spindle pole . Note=Predominantly present throughout the nucleoplasm during prometaphase, metaphase and anaphase. Is also detected in nuclear foci that are not identical with Cajal bodies. Starts to accumulate at chromosomes during telophase, and is nearly exclusively associated with chromosomes in newly divided cells (PubMed:24252166). Colocalizes with MAD1L1 at mitotic spindle poles during metaphase and anaphase (PubMed:22351768).

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.