

Recombinant Human KC1E Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50590

Size: 10ug, 100ug

Protein Name: Casein kinase I isoform epsilon (CKI-epsilon) (CKIε) (EC 2.7.11.1)

Synonym: CSNK1E

UniProt ID: P49674

UniProt Link: www.uniprot.org/uniprotkb/P49674/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 416 AA

Molecular Weight: 47 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MELRVGNKYRLGRKIGSGSFGDIYLGANIASGEEVAIKLECVKTKHPQLHIESKFYKMMQGGVGIPSI
KWCGAEGDYNVMVMELLGPSLEDLFNFCSRKFSLKTVLLLADQMISRIEYIHSKNFIHRDVKPDNFLM
GLGKKGNLVYIIDFGLAKKYRDARTHQHIPPYRENKNLTGTARYASINTHLGIEQSRDDLESLGYVLM
YFNLGSLPWQGLKAATKRQKYERISEKKMSTPIEVLCKGYPSEFSTYLNFCRSLRFDDKPDYSYLRQ
LFRNLFHRQGFSYDYVFDWNMLKFGAARNPEDVDREERREHEREERMGQLRGSATRALPPGPPTG
ATANRLRSAAEPVASTPASRIQPAGNTSPRAISRVDREKRVSMRLHRGAPANVSSSDLTGRQEVSR
PASQTSVPFDHLGK

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 Casein kinase I isoform epsilon (CKI-epsilon) (CKIε) (EC 2.7.11.1) 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: Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates (Probable). Participates in Wnt signaling (PubMed:12556519, PubMed:23413191). Phosphorylates DVL1 (PubMed:12556519). Phosphorylates DVL2 (PubMed:23413191). Phosphorylates NEDD9/HEF1 (By similarity). Central component of the circadian clock (PubMed:16790549). In balance with PP1, determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation (PubMed:15917222, PubMed:16790549). Controls PER1 and PER2 nuclear transport and degradation (By similarity). Inhibits cytokine-induced granulocyte differentiation (PubMed:15070676).

Subcellular Localization: Cytoplasm . Nucleus .

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.