

Recombinant Mouse KC1E Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51945

Size: 10ug, 100ug

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

Synonym: Csnk1e

UniProt ID: Q9JMK2

UniProt Link: www.uniprot.org/uniprotkb/Q9JMK2/entry

Species Source: Mouse

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
LFRNLFHRQGFSYDYVFDWNMLKFGAARNPEDVDREHEREERMGQLRGSATRALPPGPPTG
ATANRLRSAAEPVASTPASRIQQTGNTSPRAISRADERKVSMLHRGAPANVSSDLTGRQEVSR
LAASQTSVPFDHLGK

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 (By similarity). Participates in Wnt signaling (By similarity). Phosphorylates DVL1 (By similarity). Phosphorylates DVL2 (By similarity). Phosphorylates NEDD9/HEF1 (PubMed:29191835). Central component of the circadian clock (PubMed:18400165, PubMed:19414593, PubMed:21930935). In balance with PP1, determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation (PubMed:18400165, PubMed:19414593, PubMed:21930935). Controls PER1 and PER2 nuclear transport and degradation (PubMed:10848614, PubMed:14701732, PubMed:18400165, PubMed:19414593, PubMed:21930935). Inhibits cytokine-induced granulocyte differentiation (By similarity).

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.