

## CSNK1E Protein, Human (His)

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|--------------------------|---|
| <b>Cat. No.:</b>         | HY-P72152   |
| <b>Synonyms:</b>         | Casein kinase 1 epsilon; Casein kinase I; Casein kinase I epsilon; Casein kinase I isoform epsilon; CKI epsilon; CKI-epsilon; CKIe; CKIepsilon; CSNK 1E; CSNK1E; DBT; Doubletime, Drosophila, homolog of; EC 2.7.11.1; epsilon isoform; HCK IE; KC1E; KC1E_HUMAN; kinase CK1 epsilon; MGC 10398 |
| <b>Species:</b>          | Human   |
| <b>Source:</b>           | E. coli   |
| <b>Accession:</b>        | P49674 (M1-K416)  |
| <b>Gene ID:</b>          | 1454  |
| <b>Molecular Weight:</b> | Approximately 51.3 kDa  |

### PROPERTIES

|                                |  |
|--------------------------------|--|
| <b>AA Sequence</b>             | <pre> M E L R V G N K Y R   L G R K I G S G S F   G D I Y L G A N I A   S G E E V A I K L E C V K T K H P Q L H   I E S K F Y K M M Q   G G V G I P S I K W   C G A E G D Y N V M V M E L L G P S L E   D L F N F C S R K F   S L K T V L L L A D   Q M I S R I E Y I H S K N F I H R D V K   P D N F L M G L G K   K G N L V Y I I D F   G L A K K Y R D A R T H Q H I P Y R E N   K N L T G T A R Y A   S I N T H L G I E Q   S R R D D L E S L G Y V L M Y F N L G S   L P W Q G L K A A T   K R Q K Y E R I S E   K K M S T P I E V L C K G Y P S E F S T   Y L N F C R S L R F   D D K P D Y S Y L R   Q L F R N L F H R Q G F S Y D Y V F D W   N M L K F G A A R N   P E D V D R E R R E   H E R E E R M G Q L R G S A T R A L P P   G P P T G A T A N R   L R S A A E P V A S   T P A S R I Q P A G N T S P R A I S R V   D R E R K V S M R L   H R G A P A N V S S   S D L T G R Q E V S R I P A S Q T S V P   F D H L G K </pre> |
| <b>Biological Activity</b>     | The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.   |
| <b>Appearance</b>              | Lyophilized powder.  |
| <b>Formulation</b>             | Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol.   |
| <b>Endotoxin Level</b>         | <1 EU/µg, determined by LAL method.  |
| <b>Reconstitution</b>          | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.  |
| <b>Storage &amp; Stability</b> | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.   |
| <b>Shipping</b>                | Room temperature in continental US; may vary elsewhere.  |

### DESCRIPTION

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**Background**

CSNK1E, a member of the casein kinase family, is characterized by its preferential phosphorylation of acidic proteins, particularly caseins. The protein plays a pivotal role in Wnt signaling, as evidenced by its phosphorylation of DVL1 and DVL2, contributing to the intricate regulation of this pathway. Beyond its involvement in Wnt signaling, CSNK1E serves as a central component of the circadian clock, influencing the circadian period length by orchestrating the speed and rhythmicity of PER1 and PER2 phosphorylation. Acting in equilibrium with PP1, it governs the nuclear transport and degradation of PER1 and PER2, thereby intricately regulating the circadian rhythm. Additionally, CSNK1E demonstrates its regulatory influence by inhibiting cytokine-induced granulocytic differentiation, further emphasizing its multifaceted roles in cellular processes.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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