Data Sheet (Cat.No.TMPY-04546)

TargetMol

CLK3 Protein, Human, Recombinant (GST)

General Information

Synonyms: PHCLK3;CDC-like kinase 3;PHCLK3/152

Protein Construction: A DNA sequence encoding the human CLK3 isoform b (NP_003983.2) (Met 1-Arg 490) was fused with the GST tag at the N-terminus. Predicted N terminal: Met

Species: Human

Expression Host: Baculovirus Insect Cells

Accession: P49761-1

Molecular Weight: 85 kDa (predicted); 70 kDa (reducing conditions)

QC Testing

Biological Activity: No Kinase Activity

Purity: > 80 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Supplied as sterile 50 mM Tris, 100 mM NaCl, pH 8.0, 0.5 mM GSH, 0.5 mM PMSF, 25% glycerol.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Dual specificity protein kinase CLK3, also known as CDC-like kinase 3, and CLK3, is a member of CMGC Ser/Thr protein kinase family and Lammer subfamily. Mammalian CLK is the prototype for a family of dual specificity kinases (termed Lammer kinases) that have been conserved in evolution. CLK family members have shown to interact with, and phosphorylate, serine- and arginine-rich (SR) proteins of the spliceosomal complex, which is a part of the regulatory mechanism that enables the SR proteins to control RNA splicing. The three members of the CLK family of kinases (CLK1, CLK2, and CLK3) have been shown to undergo conserved alternative splicing to generate catalytically active and inactive isoforms. The human CLK2 and CLK3 are found within the nucleus and display dual-specificity kinase activity. The truncated isoforms, hCLK2(T) and hCLK3(T), colocalize with SR proteins in nuclear speckles. CLK3 may play a role in the development and progression of azoospermia.

Reference

Duncan, PI. et al., 1998, Exp. Cell Res. 241: 300 - 8.
Menegay, H. et al., 1999, Exp Cell Res. 253 (2): 463-73.
García-Sacristán, A. et al., 2005, Cell Res. 15 (7): 495-503.
Bullock, AN. et al., 2009, Structure 17 (3): 352-62.

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