

## Supplementary Figure 1

DCLK1-Long-NP\_004725.1; DCLK1-Short-NP\_001182344.4

CLUSTAL multiple sequence alignment by Kalign (2.0)

```
LONG      msfg rdmeleh fderdkaq rysrgsr vnglp spthsa hcsfyr trtrtl qtlsekkakkvr
Short     -----

LONG      fyrngdry fkgivyaisp drfrsfe alladl trt lsdnvn lpggvrti ytidg lkkissl
Short     -----

LONG      dqlveges yvcgsiepf kkle ytknvn p nswsvn vkttsa sravss latakg spsevrenk
Short     -----

LONG      dfirpklv tiirsgv kprkavr illnkk tahsfe qvlt ditda ikldsg vvkrl ytl d gk
Short     -----

LONG      qvmclq dffg dddi fiacg p ekfry qddf llde se crvvk stsytk iasss rrrstt kspg
Short     -----

LONG      psrrsksp astssv ngtpgs qlstpr sgksp spsp t spgsl rkqr ssqh ggsst slastk
Short     ----- mlelie vngtpgs qlstpr sgksp spsp t spgsl rkqr ssqh ggsst slastk

LONG      vcssmdend gpg eevse egfq ipatit erykvgr tig dgnfavv kecvr stareyalki
Short     vcssmdend gpg eevse egfq ipatit erykvgr tig dgnfavv kecvr stareyalki

LONG      ikk skcrg kehmiq nevsil rrvk hpnivllie emdvptely lvmelvk ggdldf daitst
Short     ikk skcrg kehmiq nevsil rrvk hpnivllie emdvptely lvmelvk ggdldf daitst

LONG      nkyterdas gmlyn lasaik ylhsln ivhrdik penllvy ehqdg skslkl gdfglativ
Short     nkyterdas gmlyn lasaik ylhsln ivhrdik penllvy ehqdg skslkl gdfglativ

LONG      dgplytvcgt ptyvape iiaetgy glk vdiwaagv ityillcg fppfrgsg d d qevlfdq
Short     dgplytvcgt ptyvape iiaetgy glk vdiwaagv ityillcg fppfrgsg d d qevlfdq

LONG      ilmqqvdf spsyw dnvdsake litmm llvdvdqr fsavqv leh pwn d d g lpenehq ls
Short     ilmqqvdf spsyw dnvdsake litmm llvdvdqr fsavqv leh pwn d d g lpenehq ls

LONG      vagkikk h fntgpkpn staagvs vialdhg ftikrsg ldy yqqpgmy wirppllirgr
Short     vagkikk h fntgpkpn staagvs vialdhg ftikrsg ldy yqqpgmy wirppllirgr

LONG      fsdedatrm
Short     fsdedatrm
```

**Supplementary Fig 1.** Amino acid sequence of human long and short isoforms of DCLK1 were aligned using CLUSTAL Omega, a web based software available at EMBL-EBI (<http://www.ebi.ac.uk/Tools/msa/clustalo/>). The peptide sequence that was used as antigen to raise polyclonal antibody for DCLK1-S is underlined and highlighted.