

Recombinant human CERK protein ab196089

2 Images

| Description         |   |
|---------------------|---|
| Product name        | Recombinant human CERK protein  |
| Biological activity | Specific Activity: 142 pmole/min/µg.  |
|                     | A unit of ceramide kinase activity is defined as the amount of enzyme required to produce 1 pmole of ceramide-1-phosphate/min at 37°C.  |
|                     | CERK activity was measured at 37°C for 25 minutes in a buffer (20 mM HEPES pH 7.2, 80 mM KCl, 3 mM CaCl <sub>2</sub> , 10 mM MgCl <sub>2</sub> , 2 mM DTT, 5 µM ATP) using a beta-Octylglucoside mixed micellar assay with 100 µM Ceramide. ATP reduction was detected.   |
| Purity              | >= 40 % SDS-PAGE.<br>Affinity purified.   |
| Expression system   | Baculovirus infected Sf9 cells  |
| Accession           | <u><b>Q8TCT0</b></u>  |
| Protein length      | Full length protein   |
| Animal free         | No  |
| Nature              | Recombinant   |
| Species             | Human   |
| Sequence            | MGATGAAEPLQSVLWVKQQRCAVSLEPARALLRWWS<br>PGPGAGAPGADAC<br>SVPVSEIIAVEETDVHGKHQSGSKWQKMEKPYAFTVHCV<br>KRARRHRWKWA<br>QVTFWCPEEQLCHLWLQTLREMLEKLTSPRKHLLVFINPF<br>GGKGQ GKRIY<br>ERKVAPLFTLASITTDIVTEHANQAKETLYEINIDKYDGM/CV<br>GGDGMF<br>SEVLHGLIGRTQRSAGVDQNHPRAVLPSSLRIGIIPAGST<br>DCVCYSTVG<br>TSDAETSALHIVGDSLAMDVSSVHHNSTLLRYSVSLLGY<br>GFYGDIIKDS<br>EKKRWLGLARYDFSGLKTFLSHHCYEGTVSFLPAQHTVG<br>SPRDRKPCRAG<br>CFVCRQSKQQLEEEQKKALYGLEAAEDVEEWQVVCCKF<br>LAINATNMSCAC<br>RRSPRGLSPAHLGDGSSDLILIRKCSRNFNLRFLIRHTNQ |

QDQFDFTFV  
EVYRVKKFQFTSKHMEDESDLKEGGKKRFGHICSSHPS  
CCCTVSNSSWN  
CDGEVLHSPAIEVRVHCQLVRLFARGIEENPKPDSHS

|  |                       |
|--|-----------------------|
| <b>Predicted molecular weight</b>      | 60 kDa including tags |
| <b>Amino acids</b>                     | 1 to 537              |
| <b>Tags</b>                            | DDDDK tag C-Terminus  |
| <b>Additional sequence information</b> | NM_022766.            |

## Specifications

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Our **Abpromise guarantee** covers the use of **ab196089** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

|                     |                                |
|---------------------|--------------------------------|
| <b>Applications</b> | Functional Studies<br>SDS-PAGE |
| <b>Form</b>         | Liquid                         |

## Preparation and Storage

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|                              |  |
|------------------------------|--|
| <b>Stability and Storage</b> | Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.<br>pH: 8.00<br>Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 20% Glycerol (glycerin, glycerine), 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol<br><br>Contains 40 ug/ml FLAG peptide.<br><br>This product is an active protein and may elicit a biological response in vivo, handle with caution. |
|------------------------------|--|

## General Info

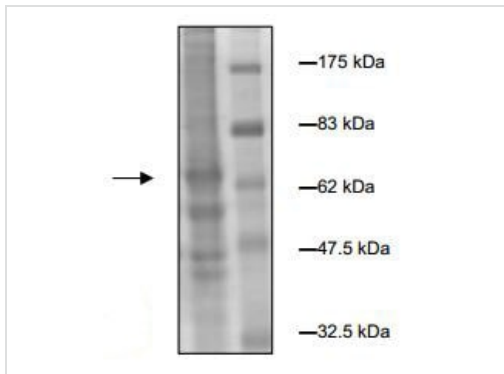
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|                              |  |
|------------------------------|--|
| <b>Function</b>              | Catalyzes specifically the phosphorylation of ceramide to form ceramide 1-phosphate. Acts efficiently on natural and analog ceramides (C6, C8, C16 ceramides, and C8-dihydroceramide), to a lesser extent on C2-ceramide and C6-dihydroceramide, but not on other lipids, such as various sphingosines. Binds phosphoinositides. |
| <b>Tissue specificity</b>    | High level expression in heart, brain, skeletal muscle, kidney and liver; moderate in peripheral blood leukocytes and thymus; very low in spleen, small intestine, placenta and lung.  |
| <b>Sequence similarities</b> | Contains 1 DAGKc domain.   |
| <b>Cellular localization</b> | Cytoplasm. Membrane.   |

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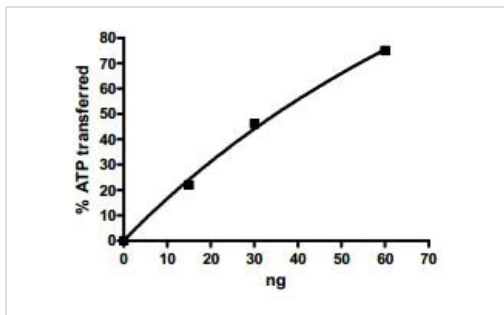
## Images

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10% SDS-PAGE analysis of 5.6 µg ab196089 followed by Coomassie staining.

SDS-PAGE - Recombinant human CERK protein (ab196089)



Kinase assay of ab196089 showing specific activity as 142 pmol/min/µg.

Functional Studies - Recombinant human CERK protein (ab196089)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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