

# Recombinant Human Maternal Embryonic Leucine Zipper Kinase, GST-tagged

**Cat. No.** MELK-1059H    **Lot. No.** (See product label)

## SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Recombinant human MELK (1-340) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>            | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ProteinLength</b>     | 1-340 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>       | <p>MELK or maternal embryonic leucine zipper kinase is a member of the CAMKL kinase family. MELK is a key regulator of the proliferation of malignant brain tumors including their stem cells (1). MELK transcript abundance correlates with malignancy grade in human astrocytomas and represents a therapeutic target for the management of the most frequent brain tumors in adult and children. MELK also plays a role in mammary carcinogenesis through inhibition of the pro-apoptotic function of Bcl-GL (2). Therefore, the kinase activity of MELK could be a promising molecular target for development of therapy for patients with breast cancers.</p> |
| <b>Applications</b>      | Kinase Assay; Western Blot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Molecular Weight</b>  | 61 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Expression System</b> | Sf9 insect cells using baculovirus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                          |                                                                                                                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>              | Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol                                                                                               |
| <b>Specific Activity</b> | 200 nmol/min/mg                                                                                                                                                                                                                         |
| <b>Purity</b>            | > 85%                                                                                                                                                                                                                                   |
| <b>Concentration</b>     | 0.1 ug/ul                                                                                                                                                                                                                               |
| <b>Sequences</b>         | 1-340                                                                                                                                                                                                                                   |
| <b>Storage</b>           | Store product at -70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |

## GENE INFORMATION

|                        |                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | MELK maternal embryonic leucine zipper kinase [ Homo sapiens ]                                                                             |
| <b>Official Symbol</b> | MELK                                                                                                                                       |
| <b>Synonyms</b>        | MELK; maternal embryonic leucine zipper kinase; HPK38; KIAA0175; Hmelk; pEg3 kinase; protein kinase PK38; EC 2.7.11.1; Protein kinase PK38 |
| <b>Gene ID</b>         | 9833                                                                                                                                       |
| <b>mRNA Refseq</b>     | NM_014791                                                                                                                                  |
| <b>Protein Refseq</b>  | NP_055606                                                                                                                                  |
| <b>MIM</b>             | 607025                                                                                                                                     |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                        |                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------|
| UniProt ID             | Q14680                                                                                                           |
| Chromosome<br>Location | 9p13.2                                                                                                           |
| Function               | ATP binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; transferase activity |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA