

# Certificate of Analysis

## MARK4, active

**Expression System:** (Recombinant enzyme expressed in Sf21 insect cells)

**Catalog Numbers:** 15-009, 15-009-K, 15-009M

**Parent Lot Number:** 231605

## Product Description

N-Terminal GST-tagged, recombinant, human MARK4 full length expressed by baculovirus in Sf21 insect cells. Purified using glutathione agarose. Molecular Weight = 109 kDa.

## Purity

43% by SDS-PAGE and Coomassie blue staining.

## Specific Activity

Parent lot# 231605: 1394 U/mg, where one unit of MARK4 activity is defined as 1 nmol phosphate incorporated into 100  $\mu$ M CHKtide (KKKVSRSGLYRSPSPENLNRPR) per minute at 30°C with a final ATP concentration of 100  $\mu$ M.

## Formulation

0.21 mg/ml of enzyme in 50 mM Tris/HCl pH 7.5, 300 mM NaCl, 0.1 mM EGTA, 0.03% Brij-35, 270 mM sucrose, 1 mM benzamidine, 0.2 mM PMSF, 0.1% 2-mercaptoethanol. Frozen solution.

## Storage and Stability

On receipt of material store at -70°C. Unopened reagent is stable for a minimum of 1 year from date of shipment when stored at recommended storage temperature. Avoid repeat freeze/thaw cycles. For maximum recovery of product, centrifuge original vial prior to removing the cap.

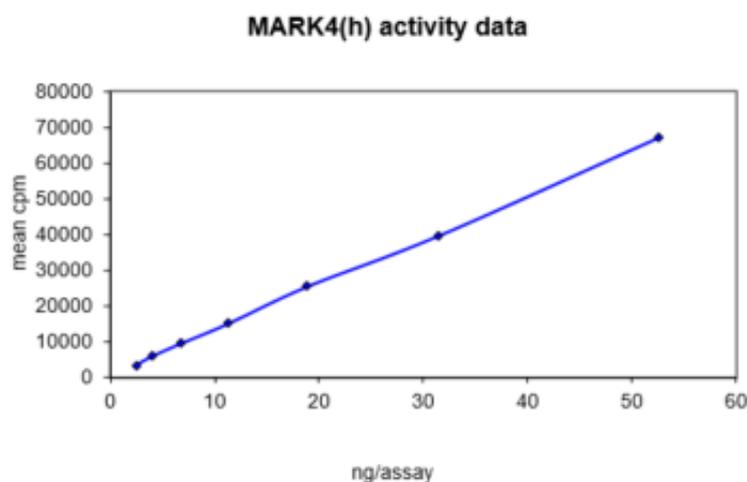
## Handling Recommendations

Rapidly thaw the vial under cold water and immediately place on ice. Aliquot unused material into pre-chilled micro-centrifuge tubes and immediately snap-freeze the vials in liquid nitrogen prior to re-storage at -70°C.

## Quality Control Testing

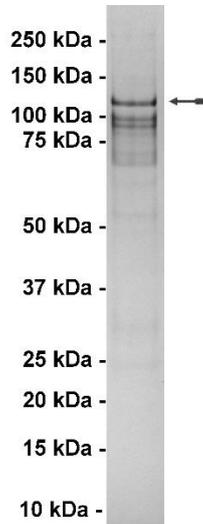
### Kinase Assay:

2.5–52.5 ng of this lot of enzyme phosphorylated 100  $\mu$ M CHKtide in a radiometric kinase assay. Assay background was subtracted from the actual counts to yield the results shown below.



MS Tryptic Fingerprint: Confirmed identity as MARK4, active with the translated sequence.

SDS-PAGE and Coomassie Stain: Purity was assessed by SDS-PAGE and Coomassie blue staining using 3 µg of MARK4, active.



The data presented in this document apply to the parent lot shown above and to all pack sizes derived from subsequent vialling runs of this parent lot. An alphabetical suffix after the parent lot number is used to denote each vialling run.

## Sequence Information

<b>Protein</b>	Human MARK4
<b>Tags</b>	N-Terminal GST
<b>Native sequence</b>	M230 of the recombinant protein is equivalent to M1 of human MARK4
<b>Accession number</b>	GenBank NM_001199867.1

### ***For Research Use Only***

Unless otherwise stated in our catalogue or other company documentation accompanying the product(s), our products are intended for research use only and are not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses or any type of consumption or application to humans or animals.

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