CL-100/HVH1/Mkp1
Human, Recombinant

Product Number C 7984
Storage Temperature -70 °C

**Product Description**
A human full-length CL-100/HVH1/Mkp1 recombinant GST-fusion protein expressed in *E. coli* that has been purified using glutathione-agarose.

CL-100/HVH1/Mkp1 is a dual specific 76 kDa protein phosphatase whose expression is induced by mitogenic growth factors. It specifically inactivates ERK. It selectively dephosphorylates threonine and tyrosine, but not serine residues of the activated ERK1. This inactivation can be reversed by MEK, which suggests that CL-100/HVH1/Mkp1 dephosphorylates the same residues that are recognized by MEK.\(^1\)

CL-100/HVH1/Mkp1 may play an important role in cellular response to ionizing radiation and the tumor necrosis factor-α by attenuating the DNA binding activities of the transcription factor AP-1 by dephosphorylating mitogen-activated protein kinase. Treatment with cycloheximide did not prevent ionizing radiation or tumor necrosis factor-α-inducible expression of CL-100/HVH1/Mkp1. This indicates that the response is independent to new protein synthesis.\(^2\)

Overexpression of CL-100/HVH1/Mkp1 prevents TGFβ1 promotor activation by high glucose.\(^3\)

Supplied as 500 units in 100 µl of 50 mM Tris-HCl buffer, 10% glycerol, pH 8.0, before addition of glycerol to 10%.

Unit Definition: One unit will hydrolyze 1 pmole of phosphate from 3-O-methyl-fluorescein phosphate per minute at pH 8.2 at 30 °C.

**Precautions and Disclaimer**
This product is for laboratory use only. Please consult the Material Data Safety Sheet for information regarding hazards and safe handling practices.

**Storage/Stability**
The product ships on dry ice and it is recommended to store the product at -70 °C. For maximum quantitative recovery centrifuge the vial after thawing and prior to removal of cap. Avoid repeated freeze-thaw cycles.

**References**

AGW 12/01