

MST4 (Human), Active

Full-length recombinant protein expressed in Sf9 cells

Cat# CY-SPM59

Lot No. P323-1
5 µg 0.1 µg/µl

Background:

MST4 belongs to a family of proteins that share similarity with a budding yeast serine/threonine kinase, sterile-20 (Ste20), and have a role in mitogen-activated protein kinase signaling during cytoskeletal rearrangement, morphogenesis, apoptosis, and other diverse cellular events (1). Expression of MST4 has been shown to correlate with tumorigenicity and inversely with androgen receptor status in a number of human prostate cancer cell lines. Overexpression of MST4 induced anchorage-independent growth and increased in vitro proliferation of these prostate cancer cell lines (2).

Product Description:

Recombinant full-length human MST4 was expressed by baculovirus in Sf9 cells using an N-terminal GST tag. The gene accession number is NM_016542.

Gene Aliases:

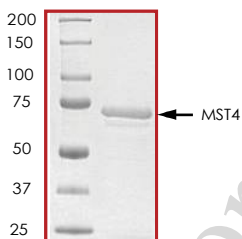
MASK; RP6-213H19.1

Formulation:

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.

Purity & Molecular Weight:

The purity was determined to be >90% by densitometry. Approx. MW 72kDa.



Storage:

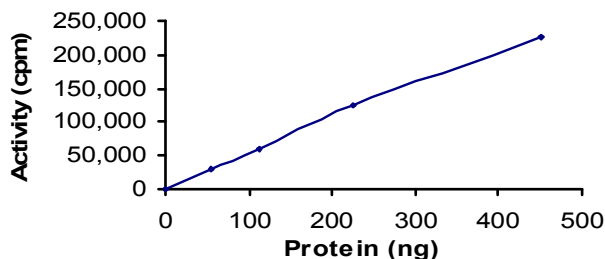
Store product at -70°C . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Stability:

1 year at -70°C from date of shipment.

**Specific Activity:**

The specific activity was determined to be 23 nmol /min/mg as per Activity Assay Protocol.

**Activity Assay Protocol:**

Assay activity of the kinase in a 25 μ L reaction consisting of 5 μ L of 5 X Kinase Assay Buffer, 10 μ L of 1 mg/ml the Substrate Solution, 5 μ L of diluted kinase and 5 μ L of 250 μ M ATP solution containing [γ 32 P] ATP (0.167 μ Ci/ μ L). Start the reaction by adding the ATP solution. Incubate for 15 minutes at 30°C. Terminate the reaction by spotting 20 μ L of the reaction mixture onto phosphocellulose P81 paper. Air-dry the P81 paper and sequentially wash 4 times for approximately 10 minutes each in 1% phosphoric acid with constant gentle stirring. Count the P81 paper in a liquid scintillation counter.

Substrate Solution:

Myelin basic protein (MBP) diluted in distilled H₂O to a final concentration of 1mg/ml.

5 X Kinase Assay Buffer:

25mM MOPS pH 7.2, 12.5mM β -glycerol-phosphate, 25mM MgCl₂, 5mM EGTA, 2mM EDTA. Add 0.25mM DTT to Kinase Assay Buffer prior to use.

References:

1. Dan, I. et al: Cloning of MASK, a novel member of the mammalian germinal center kinase III subfamily, with apoptosis-inducing properties. J. Biol. Chem. 277: 5929-5939, 2002.
2. Sung, V. et al: The Ste20 kinase MST4 plays a role in prostate cancer progression. Cancer Res. 63: 3356-3363, 2003.

CycLex Co., Ltd

1063-103 Tera-Sawaoka, Ina, Nagano, Japan 396-0002

Fax: 81-265-76-7618

e-mail: info@cyclex.co.jp

URL: <http://www.cyclex.co.jp>