# abcam

# Product datasheet

# Recombinant human Serine/threonine-protein kinase 4/MST-1 ab60337

# 画像数 4

#### 製品の詳細

製品名 Recombinant human Serine/threonine-protein kinase 4/MST-1

精製度 > 85 % Densitometry.

Affinity purified.

発現系 Baculovirus infected Sf9 cells

タンパク質長 Full length protein

Animal free No

由来 Recombinant

生物種 Human

タグ GST tag N-Terminus

## 特性

Our **Abpromise guarantee** covers the use of **ab60337** in the following tested applications.

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

アプリケーション Functional Studies

SDS-PAGE

製品の状態 Liquid

備考 <u>ab204853</u> (IRS1 peptide) can be utilized as a substrate for assessing kinase activity

Previously labelled as Serine/threonine-protein kinase 4

#### 前処理および保存

保存方法および安定性 Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

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#### 機能

Stress-activated, pro-apoptotic kinase which, following caspase-cleavage, enters the nucleus and induces chromatin condensation followed by internucleosomal DNA fragmentation. Key component of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein MST1/MST2, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ. Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. MST1/MST2 are required to repress proliferation of mature hepatocytes, to prevent activation of facultative adult liver stem cells (oval cells), and to inhibit tumor formation (By similarity). Phosphorylates 'Ser-14' of histone H2B (H2BS14ph) during apoptosis. Phosphorylates FOXO3 upon oxidative stress, which results in its nuclear translocation and cell death initiation.

組織特異性

Ubiquitously expressed.

配列類似性

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily.

Contains 1 protein kinase domain.

Contains 1 SARAH domain.

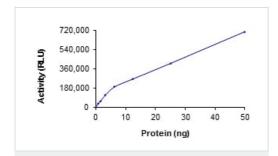
翻訳後修飾

Autophosphorylated on serine and threonine residues.

細胞内局在

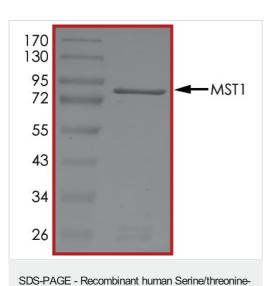
Cytoplasm. Nucleus. The caspase-cleaved form cycles between the nucleus and cytoplasm.

#### 画像

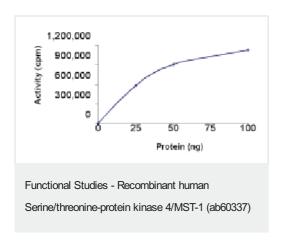


Functional Studies - Recombinant human
Serine/threonine-protein kinase 4/MST-1 (ab60337)

The specific activity of Serine/threonine-protein kinase 4/MST-1 (ab60337) was determined to be 101.7 nmol/min/mg as per activity assay protocol and was equivalent to 953 nmol/min/mg as per radiometric assay



SDS PAGE analysis of ab60337



protein kinase 4/MST-1 (ab60337)

Sample Kinase Activity Plot.



ab60337 on SDS-PAGE, MW ~83kDa.

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

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