# abcam

## Product datasheet

## Recombinant human STK3/MST-2 protein ab60885

### 5 Images

**Description** 

Product name Recombinant human STK3/MST-2 protein

Purity > 80 % Densitometry.

Affinity purified.

Expression system Baculovirus infected Sf9 cells

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

## **Specifications**

Our **Abpromise guarantee** covers the use of **ab60885** in the following tested applications.

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

**Applications** SDS-PAGE

**Functional Studies** 

Form Liquid

Additional notes <u>ab64311</u> (Myelin Basic Protein protein) can be utilized as a substrate for assessing kinase

activity

Previously labelled as STK3.

#### **Preparation and Storage**

**Stability and Storage** 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 HCI, 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.

#### **General Info**

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#### **Function**

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. Phosphorylates NKX2-1.

**Tissue specificity** 

Expressed at high levels in adult kidney, skeletal and placenta tissues and at very low levels in adult heart, lung and brain tissues.

Sequence similarities

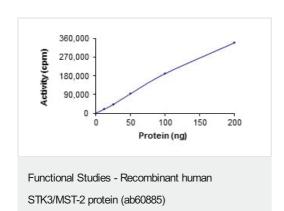
Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 protein kinase domain.

Contains 1 SARAH domain.

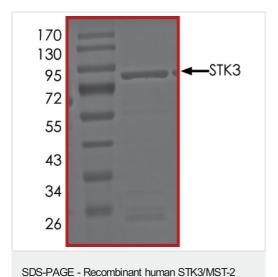
**Cellular localization** 

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

#### **Images**

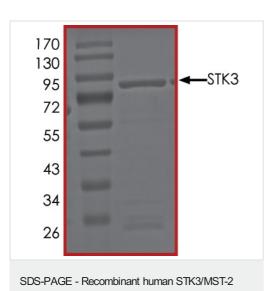


The specific activity of STK3/MST-2 (ab60885) was determined to be 235 nmol/min/mg as per activity assay protocol

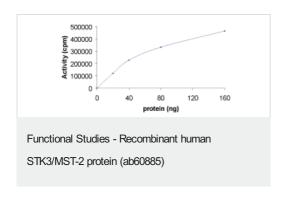


protein (ab60885)

SDS PAGE analysis of ab60885



SDS PAGE analysis of ab60885



protein (ab60885)

Sample Kinase Activity Plot.



ab60885 on SDS-PAGE, MW ~87 kDa.

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

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