

Product datasheet

Recombinant human ERK1 protein ab105904

5 Images

Description

| | |
|-----------------------------------|---|
| Product name | Recombinant human ERK1 protein |
| Biological activity | Specific activity 840 nmol/min/mg. |
| Purity | > 90 % Densitometry. ab105904 was determined to be >90% pure densitometry. |
| Expression system | Escherichia coli |
| Accession | <u>P27361</u> |
| Protein length | Full length protein |
| Animal free | No |
| Nature | Recombinant |
| Species | Human |
| Predicted molecular weight | 72 kDa including tags |
| Amino acids | 1 to 379 |
| Tags | GST tag N-Terminus |

Specifications

Our **Abpromise guarantee** covers the use of **ab105904** in the following tested applications.

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

| | |
|-------------------------|---|
| Applications | Western blot Functional Studies |
| Form | Liquid |
| Additional notes | <u>ab64311</u> (Myelin Basic Protein protein) can be utilized as a substrate for assessing kinase activity |

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: 0.307% Glutathione, 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.

General Info

Function

Involved in both the initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors such as ELK-1. Phosphorylates EIF4EBP1; required for initiation of translation. Phosphorylates microtubule-associated protein 2 (MAP2). Phosphorylates SPZ1 (By similarity). Phosphorylates heat shock factor protein 4 (HSF4).

Sequence similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.

Contains 1 protein kinase domain.

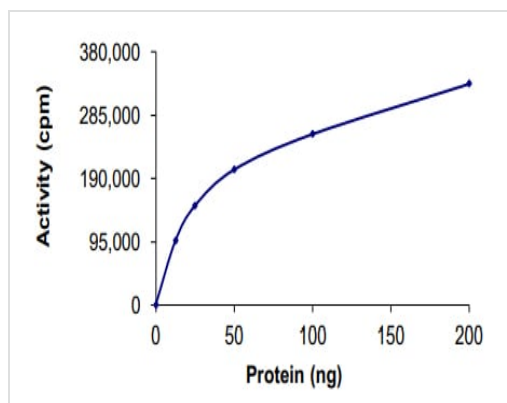
Domain

The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.

Post-translational modifications

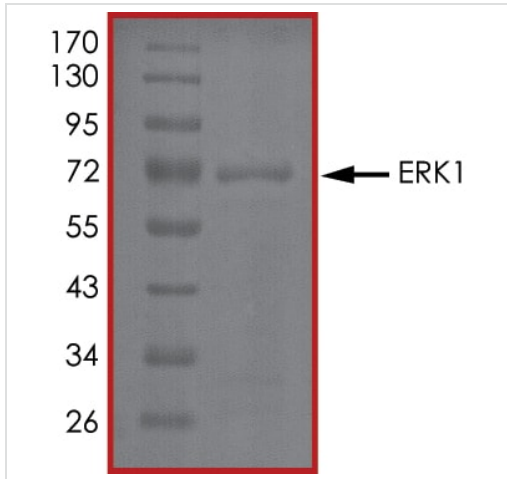
Dually phosphorylated on Thr-202 and Tyr-204, which activates the enzyme. Dephosphorylated by PTPRJ at Tyr-204.

Images



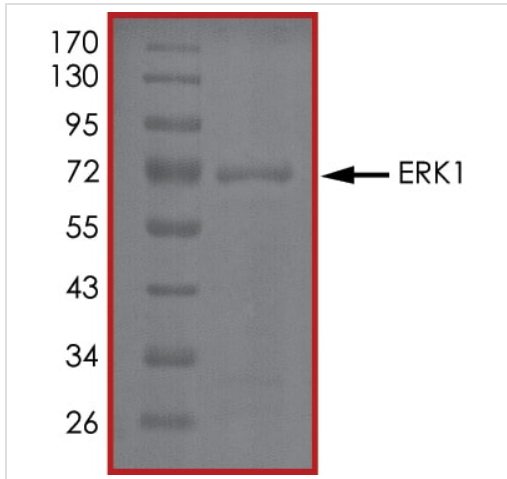
The specific activity of ERK1 (ab105904) was determined to be 715 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human ERK1 protein (ab105904)



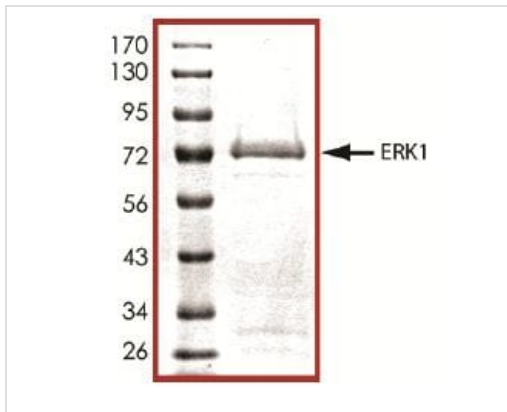
SDS PAGE analysis of ab105904

SDS-PAGE - Recombinant human ERK1 protein
(ab105904)



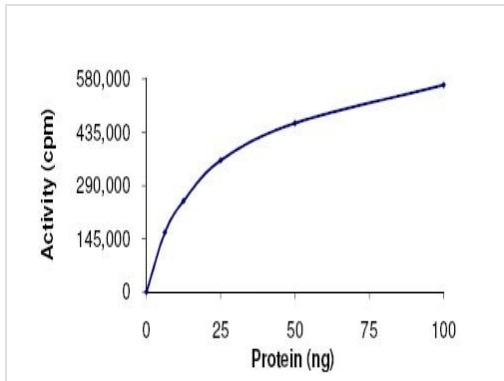
SDS PAGE analysis of ab105904

SDS-PAGE - Recombinant human ERK1 protein
(ab105904)



ab105904 was determined to be >90% pure by densitometry.

SDS-PAGE - Recombinant human ERK1 protein
(ab105904)



Functional Studies - Recombinant human ERK1 protein (ab105904)

The specific activity of ab105904 was determined to be 840 nmol/min/mg.

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

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