

Recombinant Human MAPK1 Protein, MYC/DDK-tagged, C13 and N15-labeled

Cat. No. MAPK1-052H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	MAPK1 MS Standard C13 and N15-labeled recombinant protein (NP_002736) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. One study also suggests that this protein acts as a transcriptional repressor independent of its kinase activity. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene.
Molecular Mass	41.3 kDa
AA Sequence	MAAAAAAGAGPEMVRGQVFDVGPRYTNLISYIGEGAYGMVCSAYDNNKVRVAIKKI SPFEHQTYCQRTLREIKILLRSRHENIIGINDIIRAPTIEQMKDVYIVQDLMETDLYKLLK

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TQHLSNDHICYFLYQILRGLKYIHSANVLHRDLKPSNLLLNTTCDLEICDFGLARVADP
DHDHTGFLTTEYVATRWYRAPEIMLNSKGYTKSIDIWSVGCILAEMLSNRPIFPGKHYL
DQLNHILGILGSPSQEDLNCIINLKARNYLLSLPHKNKVPWNRLFPNADSKALDLLDK
MLTFNPHKRIEVEQALAHPLYEQYYDPSDEPIAEAPFKFDMELDDLPKEKLKELIFEE
TARFQPGYRSTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name MAPK1 mitogen-activated protein kinase 1 [Homo sapiens (human)]

Official Symbol MAPK1

Synonyms MAPK1; mitogen-activated protein kinase 1; ERK; ERK-2; ERK2; ERT1; MAPK2; p38; p40; p41; p41mapk; p42-MAPK; P42MAPK; PRKM1; PRKM2; mitogen-activated protein kinase 1; MAP kinase 1; MAP kinase 2; MAPK 2; extracellular signal-regulated kinase 2; mitogen-activated protein kinase 2; protein tyrosine kinase ERK2; EC 2.7.11.24

Gene ID 5594

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mRNA Refseq	NM_002745
Protein Refseq	NP_002736
MIM	176948
UniProt ID	P28482

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