

## Product datasheet for RC204703L4V

## OriGene Technologies, Inc.

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## ERK2 (MAPK1) (NM\_138957) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

Product Name: ERK2 (MAPK1) (NM\_138957) Human Tagged ORF Clone Lentiviral Particle

Symbol: ERK2

**Synonyms:** ERK; ERK-2; ERK2; ERT1; MAPK2; NS13; p38; p40; p41; p41mapk; p42-MAPK; P42MAPK;

PRKM1; PRKM2

**Mammalian Cell** 

Selection:

Puromycin

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

Tag: mGFP

**ACCN:** NM\_138957 **ORF Size:** 1080 bp

**ORF Nucleotide** 

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Sequence:

The ORF insert of this clone is exactly the same as(RC204703).

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**RefSeq:** <u>NM 138957.2</u>

 RefSeq Size:
 1514 bp

 RefSeq ORF:
 1083 bp

 Locus ID:
 5594

 UniProt ID:
 P28482

Cytogenetics: 22q11.22

**Domains:** pkinase, TyrKc, S\_TKc





**Protein Families:** 

Druggable Genome, Protein Kinase

**Protein Pathways:** 

Acute myeloid leukemia, Adherens junction, Alzheimer's disease, Axon guidance, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Dorso-ventral axis formation, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Longterm depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, mTOR signaling pathway, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Non-small cell lung cancer, Oocyte meiosis, Pancreatic cancer, Pathways in cancer, Prion diseases, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, TGF-beta signaling pathway, Thyroid cancer, Toll-like receptor signaling pathway, Type II diabetes mellitus, Vascular smooth muscle contraction, VEGF signaling pathway

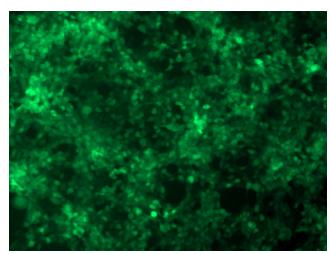
MW:

41.4 kDa

**Gene Summary:** 

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. [provided by RefSeq, Jan 2014]

## **Product images:**



[RC204703L4] was used to prepare Lentiviral particles using [TR30037] packaging kit. HEK293T cells were transduced with RC204703L4V particle to overexpress human MAPK1-mGFP fusion protein.