Product datasheet for RC200655L3

ERK5 (MAPK7) (NM_139032) Human Tagged Lenti ORF Clone

Product data:

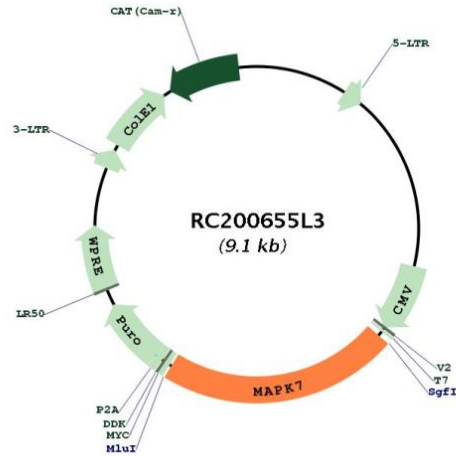|	
Product Type:	Expression Plasmids
Product Name:	ERK5 (MAPK7) (NM_139032) Human Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	ERK5
Synonyms:	BMK1; ERK4; ERK5; PRKM7
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC200655).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

Sgf I   ORF   *Mlu I*

--- GCG ATC GC C ATG --- // --- NNN* ACG CGT ---

Kozak Consensus

EcoR I   *BamH I*   RBS   *Sgf I*   ORF

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

Mlu I   *Not I*   *Xho I*   Myc.Tag

--- --- --- --- --- --- --- NNN* ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
                             T   R   T   R   P   L   E   Q   K   L   I   S   E   E

DDK.Tag

GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TGGGTAGGAAG
 D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V

* The last codon before the Stop codon of the ORF.

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Plasmid Map:

ACCN:	NM_139032
ORF Size:	2031 bp
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.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_139032.1
RefSeq Size:	2780 bp
RefSeq ORF:	2034 bp

Locus ID:	5598
UniProt ID:	Q13164
Cytogenetics:	17p11.2
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway
MW:	73.2 kDa

Gene Summary: The protein encoded by this gene is a member of the MAP kinase family. MAP kinases 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. This kinase is specifically activated by mitogen-activated protein kinase kinase 5 (MAP2K5/MEK5). It is involved in the downstream signaling processes of various receptor molecules including receptor type kinases, and G protein-coupled receptors. In response to extracelluar signals, this kinase translocates to cell nucleus, where it regulates gene expression by phosphorylating, and activating different transcription factors. Four alternatively spliced transcript variants of this gene encoding two distinct isoforms have been reported. [provided by RefSeq, Jul 2008]