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Product datasheet for MR224333

Erap1 (NM_030711) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Erap1 (NM_030711) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Erap1
Synonyms:	Arts1; ERAAP; PILSA; PILSAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR224333 representing NM_030711
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCTCTCTTCTTCCCCTAGTATTGACATTTTTATCTGTGTCATCTCCTTCTTGGTGTCAGAACAGTG
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GTAGAAATCATAGCTAGCCGGCCCACCAGCACCATTATTATGCATAGTCACCACCTGCAAATATCTAAGG
CCACCCTCAGAAGAGGAGCTGGAGAGATGCTGTCTGAAGAACCACTGAAGGTCCTGGAATATCCTGCTCA
TGAGCAAGTTGCACTGCTGGCTGCCCAGCCGCTTCTTGCTGGGTCCCTGTACACAGTTATCATCGACTAT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR224333 representing NM_030711
Red=Cloning site Green=Tags(s)

MPSLLPLVLTFLSVSSPSWCQNSDIESLKASNGDSFPWNNMRLPEYMTPIHYDLMIHANLSTLTFWGKTE
VEIIASRPTSTIIMHSHHLQISKATLRRGAGEMLSEEPLKVLEYPAHEQVALLAAQPLLAGSLYTVIIDY
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VKSVNVAEGLIEDHFDITVKMSTYLVAFIISDFKSVSKMTKSGVKVSVYAVPDKINQADYALDAAVTLLE
FYEDYFNIPYPLPKQDLAAIPDFQSGAMENWGLTTYRESSLLYDKEKSSASSKLGITMIVSHELAHQWFG
NLVTMEWWNDLWLNEGFAKFMEFVSVTVTHPELKVEDYFFGKCFNAMEVDALNSSHPVSTPVENPAQIRE
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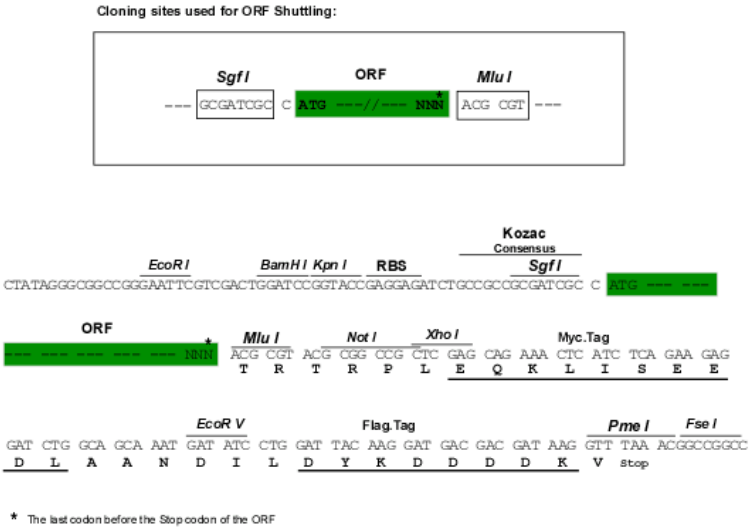
QHSSSTSHWRQEVVDVKTMMNTWTLQKGFPLITITVSGRNVHMKQEHYMKGSERFPETGYLWHVPLTFIT
SKSDSVQRFLLKTKTDVLILPEAVQWIKFNVGMNGYYIVHYADDGWASLSGLLKEAHTTISSNDRASLIN
NAFQLVSIEKLSIEKALDLTLYLKNETEIMPIFQALNELIPMYKLMEKRDMIEVETQFKDFLLKLLKDLI
DKQTWTDEGSVSERMLRSQLLLLACVRNYQPCVQRAERYFREWKSSNGNMSIPIDVTLAVFAVGAQNTEG
WDFLYSKYQSSLSSTEKSQIEFSLCTSKDPEKLQWLLDQSFKGEIIKTQEFPHILTLIGRNPVGYPLAWK
FLRENWNKLVQKFELGSSSIAHMVMGTTDQFSTRARLEEVKGFFSSLKENGSQLRCVQQTIETIEENIRW
MDKNFDKIRLWLQKEKPELL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9007_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

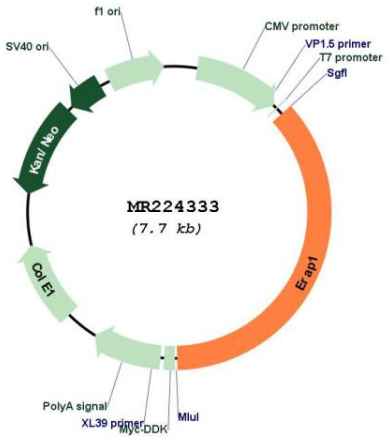


ACCN: NM_030711

ORF Size: 2790 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_030711.5
RefSeq Size:	4014 bp
RefSeq ORF:	2793 bp
Locus ID:	80898
UniProt ID:	Q9EQH2
Cytogenetics:	13 C1
MW:	107 kDa
Gene Summary:	Aminopeptidase that plays a central role in peptide trimming, a step required for the generation of most HLA class I-binding peptides. Peptide trimming is essential to customize longer precursor peptides to fit them to the correct length required for presentation on MHC class I molecules. Strongly prefers substrates 9-16 residues long. Rapidly degrades 13-mer to a 9-mer and then stops. Preferentially hydrolyzes the residue Leu and peptides with a hydrophobic C-terminus, while it has weak activity toward peptides with charged C-terminus. May play a role in the inactivation of peptide hormones. May be involved in the regulation of blood pressure through the inactivation of angiotensin II and/or the generation of bradykinin in the kidney (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224333