

Product datasheet for RR211120

Chmp4c (NM_001017466) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: Chmp4c (NM_001017466) Rat Tagged ORF Clone
 Tag: Myc-DDK
 Symbol: Chmp4c
 Synonyms: MGC108776
 Vector: pCMV6-Entry (PS100001)
 E. coli Selection: Kanamycin (25 ug/mL)
 Cell Selection: Neomycin
 ORF Nucleotide Sequence: >RR211120 representing NM_001017466
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAGCAAGTTGGCAAGTTTTTCAAAGGGTCTCGCTCTTCTCGGGCCCGCGGGCTCCCAGCGCTCAGG
 AAGCCCTGGCTCGACTCCGGGAGACCGAGGAGATGATGGCCAAGAAGCAGGAGTACCTGGAGAACCGAAT
 CCAGAGGGAGCTTGTCTAGCCAAGAAGCACGGCTCCCAGAACAAGCGAGCTGCCTTGCAGGCAGTAA
 AGAAAGAAGAGATTTGAGAAGCAGCTCACACAGATTGACGGCACCTTTCCACCATTGAGTTCAGCGGG
 AGGCGCTAGAGAACTCACACACCAACACTGAGGTCTTACGGAACATGGGCTTCGAGCAAGGCCATGAA
 AGCTGTTTCATGAAAACATGGATCTCAACAAAATCGATGACTTGTGCAAGACATCACAGAGCAGCAGGAC
 ATTGCCAGGAAATCTCAGAAGCGTTTTCTCAAAGAGTTCAGTTTGTGATGGCTTCGATGAGGATGAGC
 TTCTGGCGGAGCTCGAGGAAGTGGAGCAGGAAGAATTAATAAGAAGATGACAAGCATGGAGTCCAAA
 TGTGCTTCTCATCCCTCCCAGCACAGCCAGCAGGAAGGCCGGCGTGCCTTCTGTGCACCGCTCT
 CGAGCAGCATCTCCAGGAGGCGAGGAAGATGATGACTTCAAGCAGCTGGCAGCCTGGGCCACT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR211120 representing NM_001017466
 Red=Cloning site Green=Tags(s)

MSKLGKFFKGRSSRARAAPSAQEALARLRETEEMMAKKQEYLENRIQRELALAKKHGSQNKRAALQALK
 RKKRFEKQLTQIDGTLSTIEFQREALENSHTNTEVLRNMGFAAKAMKAVHENMDLNKIDDLMQDITEQQD
 IAQEISEAFSQRVQFADGFDEDELLAELEEELEQEELNKKMTSMELPNVPSSSLPAQPSRKAGVPSVHRS
 RAASSRRAEEDDDFKQLAAWAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

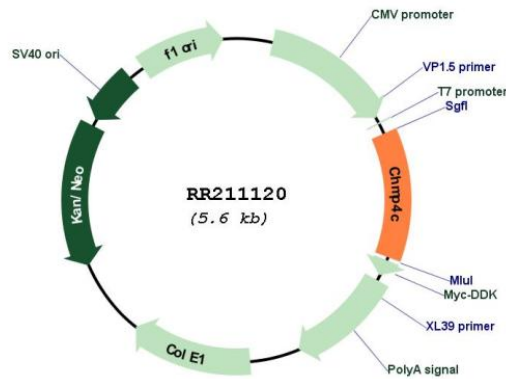
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001017466

ORF Size: 696 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:	<ol style="list-style-type: none">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_001017466.2 , NP_001017466.2
RefSeq Size:	1616 bp
RefSeq ORF:	699 bp
Locus ID:	361916
UniProt ID:	Q569C1
Cytogenetics:	2q23
MW:	26.3 kDa

Gene Summary:

Probable core component of the endosomal sorting required for transport complex III (ESCRT-III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo proteins into MVBs. MVBs contain intraluminal vesicles (ILVs) that are generated by invagination and scission from the limiting membrane of the endosome and mostly are delivered to lysosomes enabling degradation of membrane proteins, such as stimulated growth factor receptors, lysosomal enzymes and lipids. The MVB pathway appears to require the sequential function of ESCRT-O, -I, -II and -III complexes. ESCRT-III proteins mostly dissociate from the invaginating membrane before the ILV is released. The ESCRT machinery also functions in topologically equivalent membrane fission events, such as the terminal stages of cytokinesis. Key component of the cytokinesis checkpoint, a process required to delay abscission to prevent both premature resolution of intercellular chromosome bridges and accumulation of DNA damage: upon phosphorylation by AURKB, together with ZFYVE19/ANCHR, retains abscission-competent VPS4 (VPS4A and/or VPS4B) at the midbody ring until abscission checkpoint signaling is terminated at late cytokinesis. Deactivation of AURKB results in dephosphorylation of CHMP4C followed by its dissociation from ANCHR and VPS4 and subsequent abscission. ESCRT-III proteins are believed to mediate the necessary vesicle extrusion and/or membrane fission activities, possibly in conjunction with the AAA ATPase VPS4. CHMP4A/B/C are required for the exosomal release of SDCBP, CD63 and syndecan (By similarity).[UniProtKB/Swiss-Prot Function]