

Product datasheet for RC217375

CASC5 (KNL1) (NM_144508) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CASC5 (KNL1) (NM_144508) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KNL1
Synonyms:	AF15Q14; CASC5; CT29; D40; hKNL-1; hSpc105; MCPH4; PPP1R55; Spc7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC217375 representing NM_144508 Red=Cloning site Blue=ORF Green=Tags(s)

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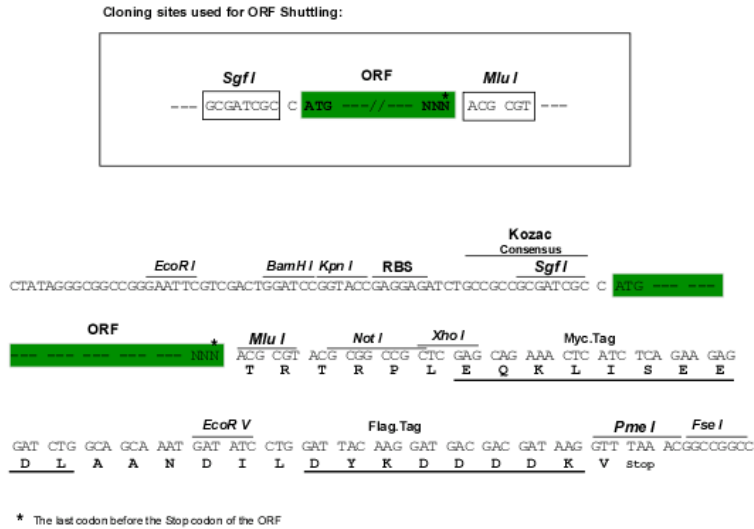
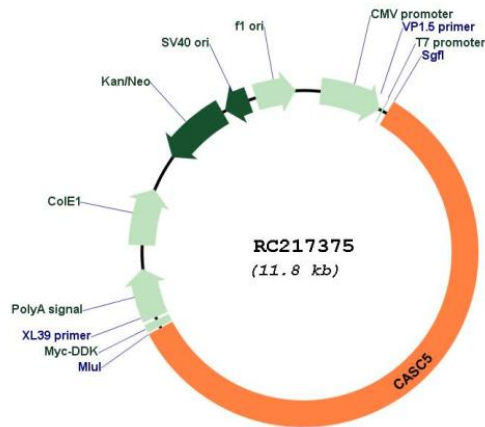
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Protein Sequence: >RC217375 representing NM_144508
 Red=Cloning site Green=Tags(s)

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 DCHFYH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Plasmid Map:

ACCN:

NM_144508

ORF Size:

6948 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_144508.3](#), [NP_653091.2](#)

RefSeq Size: 7607 bp

RefSeq ORF: 6951 bp

Locus ID: 57082

UniProt ID: [Q8NG31](#)

Cytogenetics: 15q15.1

MW: 262.5 kDa

Gene Summary: The protein encoded by this gene is a component of the multiprotein assembly that is required for creation of kinetochore-microtubule attachments and chromosome segregation. The encoded protein functions as a scaffold for proteins that influence the spindle assembly checkpoint during the eukaryotic cell cycle and it interacts with at least five different kinetochore proteins and two checkpoint kinases. In adults, this gene is predominantly expressed in normal testes, various cancer cell lines and primary tumors from other tissues and is ubiquitously expressed in fetal tissues. This gene was originally identified as a fusion partner with the mixed-lineage leukemia (MLL) gene in t(11;15)(q23;q14). Mutations in this gene cause autosomal recessive primary microcephaly-4 (MCPH4). Alternative splicing results in multiple transcript variants encoding different isoforms. Additional splice variants have been described but their biological validity has not been confirmed. [provided by RefSeq, Jan 2013]