

## Product datasheet for **RC226627L3V**

### **FZR1 (NM\_001136198) Human Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	FZR1 (NM_001136198) Human Tagged ORF Clone Lentiviral Particle
Symbol:	FZR1
Synonyms:	CDC20C; CDH1; FZR; FZR2; HCDH; HCDH1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_001136198
ORF Size:	1488 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC226627).
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. <a href="#">More info</a>
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:	<a href="#">NM_001136198.1</a> , <a href="#">NP_001129670.1</a>
RefSeq ORF:	1491 bp
Locus ID:	51343
UniProt ID:	<a href="#">Q9UM11</a>
Cytogenetics:	19p13.3
Protein Families:	Druggable Genome
Protein Pathways:	Cell cycle, Progesterone-mediated oocyte maturation, Ubiquitin mediated proteolysis
MW:	55 kDa



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**Gene Summary:**

Substrate-specific adapter for the anaphase promoting complex/cyclosome (APC/C) E3 ubiquitin-protein ligase complex. Associates with the APC/C in late mitosis, in replacement of CDC20, and activates the APC/C during anaphase and telophase. The APC/C remains active in degrading substrates to ensure that positive regulators of the cell cycle do not accumulate prematurely. At the G1/S transition FZR1 is phosphorylated, leading to its dissociation from the APC/C. Following DNA damage, it is required for the G2 DNA damage checkpoint: its dephosphorylation and reassociation with the APC/C leads to the ubiquitination of PLK1, preventing entry into mitosis. Acts as an adapter for APC/C to target the DNA-end resection factor RBBP8/CtIP for ubiquitination and subsequent proteasomal degradation. Through the regulation of RBBP8/CtIP protein turnover, may play a role in DNA damage response, favoring DNA double-strand repair through error-prone non-homologous end joining (NHEJ) over error-free, RBBP8-mediated homologous recombination (HR) (PubMed:25349192). [UniProtKB/Swiss-Prot Function]