

Product datasheet for **MR206701L4V**

Fbxo5 (NM_025995) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Fbxo5 (NM_025995) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Fbxo5
Synonyms:	2510044110Rik; C85305; Emi1; Fbxo31
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_025995
ORF Size:	1266 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR206701).
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.
RefSeq:	NM_025995.2 , NP_080271.2
RefSeq Size:	1820 bp
RefSeq ORF:	1266 bp
Locus ID:	67141
UniProt ID:	Q7TSG3
Cytogenetics:	10 A1



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Gene Summary:

Regulator of APC activity during mitotic and meiotic cell cycle (PubMed:17190794, PubMed:15526037, PubMed:16809773). During mitotic cell cycle plays a role as both substrate and inhibitor of APC-FZR1 complex (PubMed:16809773). During G1 phase, plays a role as substrate of APC-FZR1 complex E3 ligase. Then switches as an inhibitor of APC-FZR1 complex during S and G2 leading to cell-cycle commitment. As APC inhibitor, prevents the degradation of APC substrates at multiple levels: by interacting with APC and blocking access of APC substrates to the D-box co-receptor, formed by FZR1 and ANAPC10; by suppressing ubiquitin ligation and chain elongation by APC by preventing the UBE2C and UBE2S activities. Plays a role in genome integrity preservation by coordinating DNA replication with mitosis through APC inhibition in interphase to stabilize CCNA2 and GMNN in order to promote mitosis and prevent rereplication and DNA damage-induced cellular senescence (By similarity). During oocyte maturation, plays a role in meiosis through inactivation of APC-FZR1 complex. Inhibits APC through RPS6KA2 interaction that increases FBXO5 affinity for CDC20 leading to the metaphase arrest of the second meiotic division before fertilization (PubMed:15526037). Controls entry into the first meiotic division through inactivation of APC-FZR1 complex (PubMed:17190794). Promotes migration and osteogenic differentiation of mesenchymal stem cells (By similarity).[UniProtKB/Swiss-Prot Function]