

## Product datasheet for **MG206701**

### Fbxo5 (NM\_025995) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Fbxo5 (NM_025995) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fbxo5
Synonyms:	2510044I10Rik; C85305; Emi1; Fbxo31
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG206701 representing NM_025995 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCCGGCGCACCTGCAGTGACCTGCGCCGGCCGTCTCCTGTCCCTGCCGTCTTGGCGCGGGACTA  
CCGTGGACGGTTGTAAGAAGAAAGCCCTGTTCTTTCTGTTACAATGAAGTGTTTAATTGCAACCCCTGA  
TCTTTCCGAGCTTGAAGTGGTGAAGCCTGAGGACAGTGGGATAGAAGTTCCTACAGTCCCGTGTGTTG  
GAACCTTCTGTAATGACTGTGTAGAAACCATGAGAGGTTGTCTTTCATCGACTACCAATTGTGGGAC  
ATGATAACAAGGAAAATCAACGCGTACAAAACACACTAGATAGTTCAAACGAAACAGAAGAGCTAGAGGC  
CAGTAGACTGTATGAGGACAGTGGCTACTCATCTTTCACACAAAGTGACCGTGACGATGGCATCCTTATC  
CTGGAGAATTTAGAAAACAGTCCCCAGGCCGCTGCTGCCATCACAGAGCCCGGACCAGCATCCCAACA  
AAACCTTGCTGCCTGTCTGCAATTTGAAAGAGTGGTTTGTCAACACTAAAAAGAATGGCAAGCGAAA  
CCCTAAAGTGGATCGAGAAATGCTGAAGGAAGTATTGCCAGCGGGAACCTTAGACTGCAAAATATAATT  
GGCAAGAAAATGGGCCTGGAGCACCTAGACATCCTGGCTGAGCTCTCCCGCAGGGGATTCGTGCACCTGT  
TGGCTAACATTTGACTAAGCTCAGCGGCATGGACTTAGTAAATCTGTCTAAAGTGAAGCAGAAATTTGAA  
GAAGATACTGAAAACAATAAGGGGGCGTTCCAGCTCTACAGCAAACCATGCAGCGAGTCATTGAAAGC  
AGTAAGTTGTCACTACATGCTACAACGAGAGGATATGTTGTGGCAGAGCTGCACAACTGTGTTCAA  
AGTCATCGACCTGGGCACCTCCCAAAAAGATGTTCAAATCAAGTCTCCAGTCAGCGTGGTCAGAGAGT  
TTCTACCTACAGCCGGCACAATGAGTTCGTGGAGTGGCAAAGACATTGAAGAACAACGAAAGCCTCAAA  
GCCTGTGTTGCTGTAATTTCCCTGCAAAATATGACCACTATTTAGAGCGAGCAGTCTGCAAAACGGGAAA  
GCTGTCAATTTGAATATTGTACAAAGTGTCTGTGTGCTTACCATAACAACAAGACTGTTTGAATGGCAA  
GATCCTAAAAGCCAGCTGTAAAGTGGTCTTTGCCTGGAACAAAAAGAGTAAAAAGAACTTACAAAGA  
TTG

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

**Protein Sequence:** >MG206701 representing NM\_025995  
 Red=Cloning site Green=Tags(s)

MSRRTCSDLRRPSSPCRLGARTTVDGCKEESPVLSVTMKCFNCNPDLSELEVVKPEDSGIEASYSPVCL  
 EPSCNDCVRNHERLSFIDSPIVGHDKENQRVQNTLDSSNETEELEASRLYEDSGYSSFTQSDRDDGILI  
 LENFRNSPQARLLPSQSPDQHPNKTLLPVLHFERVVVSTLKKNGKRNPKVREMLKEVIASGNFRLQNI  
 GKMGLEHLDILAE LSRGFVHLLANIL TKL SGM DLVNL SKVSRIWKKILENNKGAFQLYSKTMQRVIES  
 SKLSLHATTRGYVVGRAALTCVQKSSTWAPPKDVQIKSSSQRGQRVSTYSRHNEFVEVAKTLKNNESLK  
 ACVRCNFPKYDHYLERAVCKRESCQFEYCTKCLCAYHNNKDCLNGKILKASCKVGPLPGTKKSKKNLQRL

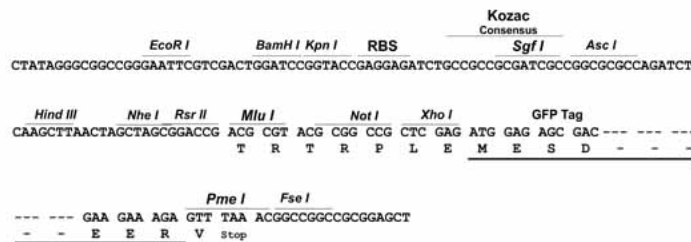
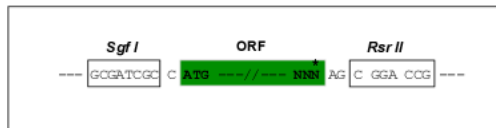
SGPTRRRLE - GFP Tag - V

**Restriction Sites:**

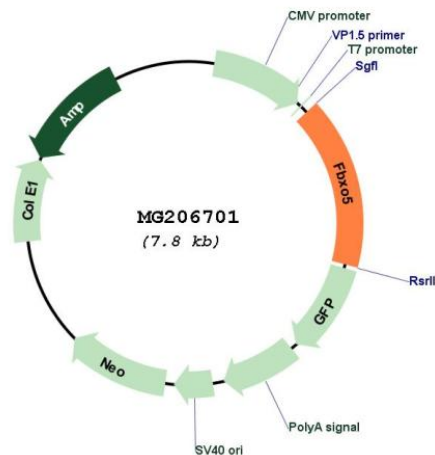
SgfI-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:**

NM\_025995

<b>ORF Size:</b>	1263 bp
<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_025995.2</a> , <a href="#">NP_080271.2</a>
<b>RefSeq Size:</b>	1820 bp
<b>RefSeq ORF:</b>	1266 bp
<b>Locus ID:</b>	67141
<b>UniProt ID:</b>	<a href="#">Q7TSG3</a>
<b>Cytogenetics:</b>	10 A1

**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]