

## Product datasheet for **MG226439**

### Usp9x (NM\_009481) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Usp9x (NM_009481) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Usp9x
Synonyms:	5730589N07Rik; AA407302; AA407699; AL022658; AL022749; Dffrx; FAF-X; FafI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226439 representing NM_009481, <b>codon optimized</b> . Due to the complexity of NM_009481, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

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AGGAGTCACTCCTCAAACCAAGGACCAA

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

**Protein Sequence:** >MG226439 representing NM\_009481  
 Red=Cloning site Green=Tags(s)

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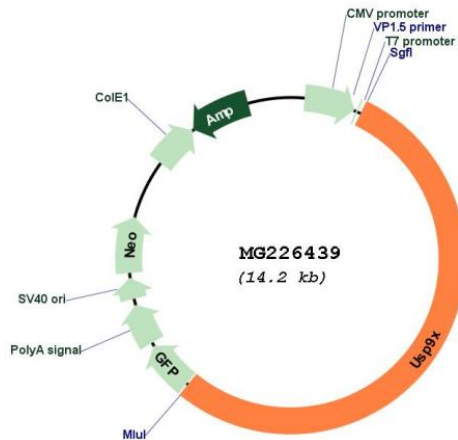
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_009481

ORF Size: 7662 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).

<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_009481.2</a> , <a href="#">NP_033507.2</a>
<b>RefSeq Size:</b>	11903 bp
<b>RefSeq ORF:</b>	7665 bp
<b>Locus ID:</b>	22284
<b>UniProt ID:</b>	<a href="#">P70398</a>
<b>Cytogenetics:</b>	X 7.95 cM
<b>Gene Summary:</b>	<p>Deubiquitinase involved both in the processing of ubiquitin precursors and of ubiquitinated proteins. May therefore play an important regulatory role at the level of protein turnover by preventing degradation of proteins through the removal of conjugated ubiquitin. Specifically hydrolyzes 'Lys-48', 'Lys-29'- and 'Lys-33'-linked polyubiquitins chains. Essential component of TGF-beta/BMP signaling cascade. Specifically deubiquitinates monoubiquitinated SMAD4, opposing the activity of E3 ubiquitin-protein ligase TRIM33. Deubiquitinates alkylation repair enzyme ALKBH3. OTUD4 recruits USP7 and USP9X to stabilize ALKBH3, thereby promoting the repair of alkylated DNA lesions. Regulates chromosome alignment and segregation in mitosis by regulating the localization of BIRC5/survivin to mitotic centromeres (By similarity). Involved in axonal growth and neuronal cell migration (By similarity) (PubMed:24607389). Regulates cellular clock function by enhancing the protein stability and transcriptional activity of the core circadian protein ARNTL/BMAL1 via its deubiquitinating activity (PubMed:29626158). [UniProtKB/Swiss-Prot Function]</p>