

## Product datasheet for **RG216684**

### TAF1 (NM\_138923) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TAF1 (NM_138923) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TAF1
Synonyms:	BA2R; CCG1; CCGS; DYT3; DYT3/TAF1; KAT4; MRXS33; N-TAF1; NSCL2; OF; P250; TAF(II)250; TAF2A; TAFII-250; TAFII250; XDP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216684 representing NM_138923 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

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GGTGGGATGAGGTATCAGAGGAGGAAGAAGATGAGGAGGAGGAAGAGCAGCGCTCTGGGCCGAGCGTAC  
TAAGCCAGGTCCACCTGTAGAGGACGAGGAGGACAGTGAAGATTTCACCTCCATTGCTGGGGACAGTGA  
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG216684 representing NM\_138923  
Red=Cloning site Green=Tags(s)

MGPGLDLLRRTAATITAAAIMSDTSDSDSAGGGPFLAGFLFGNINGAGQLEGEVLDDECKHLAGLG  
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EDDYDADCEDIDCKLMPPPPPPGPMKKDKDQDSITGEKVDFSSSDSESEMGPQEAQAESEDKGLTLP  
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QSMLDLCEKLEKEDKLARLEKAINPLLDQVAFSFLDNIIVTQKMAVPDSWPFHHPVNNKFPDY  
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PEKQVTQEGEDGDGLADEEEGTVQQPQASVLYEDLLMSEGEDDEEDAGSDEEGDNPFSATQLESSEGS  
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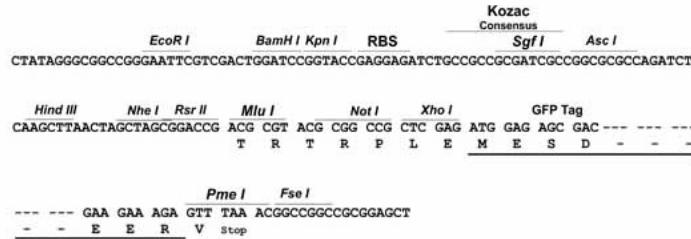
TRTRPLE – GFP Tag – V

**Restriction Sites:**

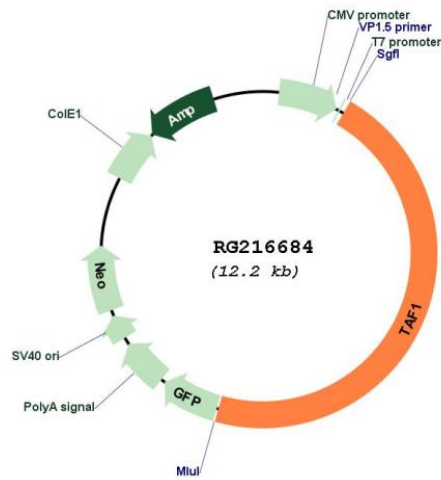
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_138923  
 ORF Size: 5616 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_138923.3</a>
<b>RefSeq Size:</b>	7646 bp
<b>RefSeq ORF:</b>	5559 bp
<b>Locus ID:</b>	6872
<b>UniProt ID:</b>	<a href="#">P21675</a>
<b>Cytogenetics:</b>	Xq13.1
<b>Protein Families:</b>	Protein Kinase
<b>Protein Pathways:</b>	Basal transcription factors

**Gene Summary:**

Initiation of transcription by RNA polymerase II requires the activities of more than 70 polypeptides. The protein that coordinates these activities is the basal transcription factor TFIID, which binds to the core promoter to position the polymerase properly, serves as the scaffold for assembly of the remainder of the transcription complex, and acts as a channel for regulatory signals. TFIID is composed of the TATA-binding protein (TBP) and a group of evolutionarily conserved proteins known as TBP-associated factors or TAFs. TAFs may participate in basal transcription, serve as coactivators, function in promoter recognition or modify general transcription factors (GTFs) to facilitate complex assembly and transcription initiation. This gene encodes the largest subunit of TFIID. This subunit binds to core promoter sequences encompassing the transcription start site. It also binds to activators and other transcriptional regulators, and these interactions affect the rate of transcription initiation. This subunit contains two independent protein kinase domains at the N- and C-terminals, but also possesses acetyltransferase activity and can act as a ubiquitin-activating/conjugating enzyme. Mutations in this gene result in Dystonia 3, torsion, X-linked, a dystonia-parkinsonism disorder. Alternative splicing of this gene results in multiple transcript variants. This gene is part of a complex transcription unit (TAF1/DYT3), wherein some transcript variants share exons with TAF1 as well as additional downstream DYT3 exons. [provided by RefSeq, Oct 2013]