

Product datasheet for **RG230116**

FOXP2 (NM_001172767) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FOXP2 (NM_001172767) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FOXP2
Synonyms:	CAGH44; SPCH1; TNRC10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG230116 ORF sequence, **codon optimized**.
 Due to the complexity of NM_001172767, 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)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATGCAGGAGAGTGCTACTGAGACAATCTCCAATAGTAGTATGAATCAGAACGGTATGTCAACCCTGT
 CATCCCAACTTGACGCTGGATCTCGAGACGGAAGGAGCTCTGGTGATACTAGCTCAGAAGTAAGCACAGT
 GGAGTTGCTGCATCTCCAACAACAAGCTCTGCAAGCTGCTGCCAGCTTTTGTCTCAACAGCAGACA
 AGCGGGCTGAAATCTCCAAGAGCAGCGATAAACAGCGCCCGCTGCAGGAGCTCTGCCAGAAACCAAAC
 TTTGTATTTGCGGCCACTCCAGTGGGGACGGCCATCCACATAATACTTTTCGAGTGCCCGTTTCAGTAGC
 CATGATGACCCCCAGGTGATAACCCACAGCAGATGCAGCAGATACTGCAACAGCAGGTGCTGAGCCCC
 CAGCAGCTTACGGCCCTGCTGCAGCAACAGCAAGCGTTATGCTCCAGCAGCAACAGTTGCAGGAATTTT
 ACAAGAAACAGCAGGAGCAGCTGCATCTGCAACTCCTGCAGCAGCAACAGCAGCAGCAGCAGCAGCA
 GCAACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAACAGCAGCAGCAGCAGCAG
 CAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC
 AGCTTCCCGCTCAGCAACTGGTGTTCACAACAGTTGCTGCAGATGCAACAATTGCAGCAACAGCAACA
 CCTCTTGTCTTTGCAGAGACAGGGCTGATCTCAATCCCCCGGGCAAGCCGCTTGCCCGTGCAGTCC
 CTGCCTCAGGCAGGACTCAGTCCCTGCAGAAATCCAACAGCTGTGGAAAGAGGTGACTGGGGTGCATAGCA
 TGGAAAGACAACGGGATCAAGCATGGTGGATTGGACCTGACCACCAATAACTCCAGCAGTACGACCTCAAG
 CAACACATCAAAGGCATCCCCACCAATCACTCACCATTCTATTGTGAACGGGCAATCCTCTGTGTTGAGC
 GCACGAAGAGATTCAAGCAGTCAAGGAGACAGGCGCTCTCACACTGTACGGCCATGGAGTATGTA
 AGTGGCCAGGCTGTGAATCTATTTGCGAGGATTCGGACAGTTTTTGAACATCTCAATAATGAACACGC
 TCTCGACGACAGGACAGCGCAGTGTGAGTTCAGATGCAAGTGGTGAACAGCTCGAAATACAGCTC
 AGTAAGGAACGCGAGCGTTGCAAGCAATGATGACTCATCTCCATATGCGCCCTTCTGAGCCCAAGCCCA
 GCCAAAACCTGTATCAGCCTATTGTTTTATCAATAGCAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG230116 representing NM_001172767
 Red=Cloning site Green=Tags(s)

MMQESATETISNSSMNQNGMSTLSSQLDAGSRDGRSSGDTSSSEVSTVELLHLQQQALQAARQLLLQQQT
 SGLKSPKSSDKQRPLQELLPETKLCICGHSSGDGHPHNTFAVPVSVAMMTPQVITPQQMQQILQQQVLS
 QQLQALLQQQAVMLQQQLQEFYKQQEQLHLQLLQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ
 QQQQQHPGKQAKEQQQQQQQLAAQQLVFQQLLQMQLQQQHLLSLQRQLISIPPGQAALPVQS
 LPQAGLSPAEIQQLWKEVTGVHSMEDNGIKHGGLDLTTNNSSTSSNTSKASPPITHHSIVNGQSSVLS
 ARRDSSESHEETGASHTLYGHGVCKWPGCESICEDFGQFLKHLNNEHALDDRSTAQCRVQM VVQQL E I Q L
 SKERERLQAMMTHLHMRPSEPKPSPKPVSA YCF INSK

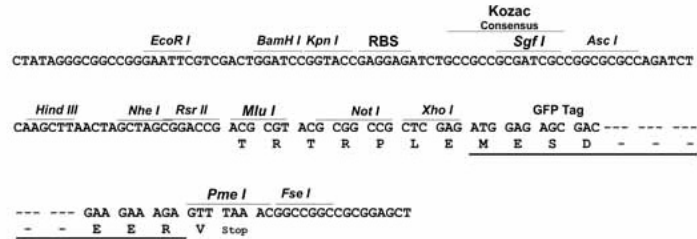
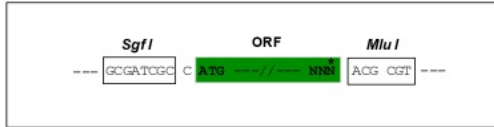
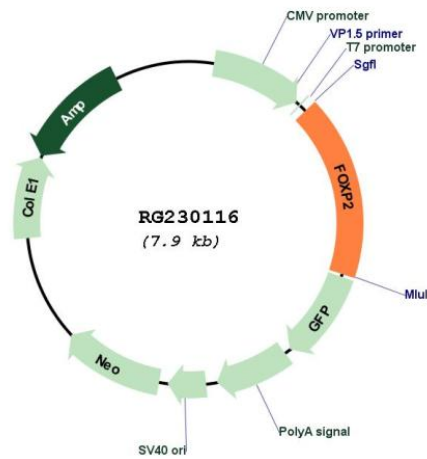
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:


ACCN:	NM_001172767
ORF Size:	1371 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).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.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.
RefSeq:	NM_001172767.1 , NP_001166238.1
RefSeq Size:	1485 bp
RefSeq ORF:	1374 bp
Locus ID:	93986
UniProt ID:	O15409
Cytogenetics:	7q31.1
Protein Families:	Transcription Factors
Gene Summary:	<p>This gene encodes a member of the forkhead/winged-helix (FOX) family of transcription factors. It is expressed in fetal and adult brain as well as in several other organs such as the lung and gut. The protein product contains a FOX DNA-binding domain and a large polyglutamine tract and is an evolutionarily conserved transcription factor, which may bind directly to approximately 300 to 400 gene promoters in the human genome to regulate the expression of a variety of genes. This gene is required for proper development of speech and language regions of the brain during embryogenesis, and may be involved in a variety of biological pathways and cascades that may ultimately influence language development. Mutations in this gene cause speech-language disorder 1 (SPCH1), also known as autosomal dominant speech and language disorder with orofacial dyspraxia. Multiple alternative transcripts encoding different isoforms have been identified in this gene.[provided by RefSeq, Feb 2010]</p>