

Product datasheet for **RC230116**

FOXP2 (NM_001172767) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FOXP2 (NM_001172767) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FOXP2
Synonyms:	CAGH44; SPCH1; TNRC10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC230116 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**

ATGATGCAGGAGAGTGTACTGAGACAATCTCCAATAGTAGTATGAATCAGAACGGTATGTCAACCCTGT
 CATCCCAACTTGACGCTGGATCTCGAGACGGAAGGAGCTCTGGTGATACTAGCTCAGAAGTAAGCACAGT
 GGAGTTGTGCATCTCCAACAACAAGCTCTGCAAGCTGCTGCCAGCTTTTGTCTCAACAGCAGACA
 AGCGGGCTGAAATCTCCAAGAGCAGCGATAAACAGCGCCCGCTGCAGGAGCTCTGCCAGAAACCAAC
 TTTGTATTTGCGGCCACTCCAGTGGGGACGGCCATCCACATAATACTTTTCGAGTGCCCGTTTCAGTAGC
 CATGATGACCCCCAGGTGATAACCCACAGCAGATGCAGCAGATACTGCAACAGCAGGTGCTGAGCCCC
 CAGCAGCTTACGGCCCTGCTGCAGCAACAGCAAGCGTTATGCTCCAGCAGCAACAGTTGCAGGAATTTT
 ACAAGAAACAGCAGGAGCAGCTGCATCTGCAACTCCTGCAGCAGCAACAGCAGCAGCAGCAGCAGCA
 GCAACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAACAGCAGCAGCAGCAG
 CAGCAGCAGCAGCAGCAGCATCCTGGGAAACAGGCCAAGGAGCAGCAGCAGCAGCAGCAACAACAGCAGC
 AGCTTGCCGCTCAGCAACTGGTGTTCACAACAAGTTGCTGCAGATGCAACAATTGCAGCAACAGCAACA
 CCTCTTGTCTTTGCAGAGACAGGGCTGATCTCAATCCCCCGGGCAAGCCGCTTGCCCGTGCAGTCC
 CTGCCTCAGGCAGGACTCAGTCTGCAGAAATCCAACAGCTGTGGAAAGAGGTGACTGGGGTGCATAGCA
 TGGAAAGACAACGGGATCAAGCATGGTGGATTGGACCTGACCACCAATAACTCCAGCAGTACGACCTCAAG
 CAACACATCAAAGGCATCCCCACCAATCACTCACCATTCTATTGTGAACGGGCAATCCTCTGTGTTGAGC
 GCACGAAGAGATTCAAGCAGTCAAGGAGACAGGCGCTCTCACACTGTACGGCCATGGAGTATGTA
 AGTGGCCAGGCTGTGAATCTATTTGCGAGGATTCGGACAGTTTTTGAACATCTCAATAATGAACAGC
 TCTCGACGACAGGACAGCGCAGTGTGAGTTCAGATGCAAGTGGTGAACAGCTCGAAATACAGCTC
 AGTAAGGAACGCGAGCGTTGCAAGCAATGATGACTCATCTCCATATGCGCCCTTCTGAGCCCAAGCCCA
 GCCAAAACCTGTATCAGCCTATTGTTTTATCAATAGCAAG

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230116 representing NM_001172767
 Red=Cloning site Green=Tags(s)

MMQESATETISNSSMNQNGMSTLSSQLDAGSRDGRSSGDTSSSEVSTVELLHLQQQQALQAARQLLLQQQT
 SGLKSPKSSDKQRPLQELLPETKLCICGHSSGDGHPHNTFAVPVSVAMMTPQVITPQQMQQILQQQVLS
 QQLQALLQQQAVMLQQQLQEFYKQKQQLHLQLLQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ
 QQQQQHPGKQAKEQQQQQQQQQLAAQQLVFQQQLLQMQQLQQQHLLSLQRQLISIPPGQAALPVQS
 LPQAGLSPAEIQQLWKEVTGVHSMEDNGIKHGGLDLTTNNSSTSSNTSKASPPITHHSIVNGQSSVLS
 ARRDSSSHEETGASHTLYGHGVCKWPGCESICEDFGQFLKHLNNEHALDDRSTAQCRVQMVVQLEIQL
 SKERERLQAMMTHLHMRPSEPKPSPKPVSAFCYCFINSK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


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:

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](#), [NM_001172767.2](#), [NP_001166238.1](#)

RefSeq Size: 1485 bp

RefSeq ORF: 1374 bp

Locus ID: 93986

UniProt ID: [O15409](#)

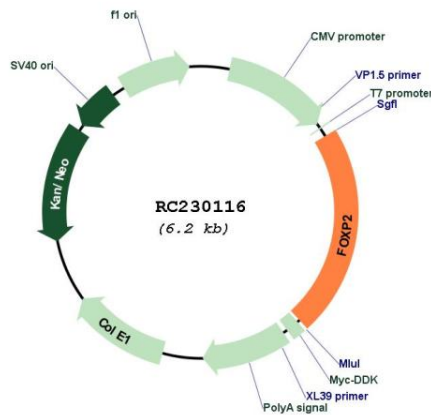
Cytogenetics: 7q31.1

Protein Families: Transcription Factors

MW: 51.4 kDa

Gene Summary: 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]

Product images:



Circular map for RC230116