

## Product datasheet for **RG237985**

### DOC2A (NM\_001282063) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DOC2A (NM_001282063) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DOC2A
Synonyms:	Doc2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237985 representing NM_001282063. Blue=ORF Red=Cloning site Green=Tag(s)

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GTGAACCGTCAGAAATTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTA
CCGAGGAGATCTGCCCGCGCATCGCCGGCGCGCC
ATGAGGGGCCGAGGGGCGATCGCATGACCATCAACATCCAGGAGCACATGGCCATCAACGTGTGCCCC
GGGCCCATCCGGCCCATCCGCCAGATCTCTGACTACTTCCCCGGGGACCAGGACCTGAAGGGGGCGGC
GGGGGGCGGGGAGGCCCGCCCATCTGGTCCCCCTGGCTCTGGCCCCCTGCAGCCCTCCTTGGG
GCCACCACGCCTGAGGATGGTGGGAGGTGGACAGCTATGACTCGGATGATGCCACCGCCCTAGGCAG
CTGGAGTTTGACCTTCTCTACGACCGGGCTCCTGCACCTGCACTGTAGCATCCTCAGGCCAAGGGC
CTCAAGCCATGGATTTCAATGGCTCGCCGACCCTACGTCAAGCTGCACCTGCTGCCTGGAGCCTGT
AAGGCCAATAAGCTAAAAACGAAGACTCAGAGGAACACACTGAATCCCGTGTGGAATGAGGACCTGACT
TACAGCGGGATCACAGATGACGACATCACGCACAAGGTGCTCAGGATCGCCGTCTGTGATGAGGACAAG
CTGAGTCAACAATGAGTTTATTGGGGAGATCCGCGTGCCCTCCGCGCCCTCAAGCCTTCGCAGAAGAAG
CATTTTAAACATCTGCCTCGAGCGCCAGGTCCCCTGGCGTCCCCCTTTCCATGTGAGCGGCGCTGAGG
GGCATCTCCTGTTATCTGAAGGAGTTGGAGCAGGCGGAGCAGGGGAGGGGCTGCTGGAGGAGCGTGGC
CGCATCCTGCTGAGTCTCAGCTACAGCTCGCGGCGCCGGGACTGCTGGTAGGCATCTTGCCTGCGCC
CATCTGGCTGCCATGGACGTCAACGTTACTCGGACCCCTACGTCAAGACGTACCTGAGGCCCGATGTG
GACAAGAAATCCAAGCATAAGACGTGTGTGAAGAAGAAGACTCAACCCAGAATTTAACGAGGAGTTT
TTCTACGAGATAGAGCTCTCCACTCTGGCCACCAAGACCCTGGAAGTCAACGCTCTGGGACTATGACATT
GGCAAATCCAATGACTTCATTGGTGGCGTGTCCCTGGGGCCAGGTGCCCGAGGCGAGGCTCGGAAGCAC
TGGAGTACTGCCTGCAGCAGCCGACGACGCCCTGGAGCGCTGGCACACCCTGACCAGTGAAGTGCCT
CCTGCGGCGGGGCTCTGTCTCAGCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

```



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**Protein Sequence:** >Peptide sequence encoded by RG237985  
 Blue=ORF Red=Cloning site Green=Tag(s)

MRGRRGDRMTINIQEHMAINVCVPIRPIRQISDYFPRGPGPEGGGGGGGEAPHLVPLALAPPAALLG  
 ATTPEDGAEVDSYDSDDATAALGTLEFDLLYDRASCTLHCSILRAKGLKPMDFNGLADPYVKLHLLPGAC  
 KANKLKTQRNTLNPVWNEDLTYSGITDDDIHKVLRIVCDEDKLSHNEFIGEIRVPLRRLKPSQKK  
 HFNICLERQVPLASPSMSAALRGISCYLKELEQAEQGQLLEERGRILLSLSYSSRRRGLLVGILRCA  
 HLAAMDVNGYSDPYVKTYLRPDVDKSKHKTCVKKKTLPNPEFNEEFFYEIELSTLATKTLEVTWVDYDI  
 GKSNDFIGGVSLGPGARGEARKHWSDCLOQPDAALERWHTLTSELPPAAGALSSA  
**TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV**  
 MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** AscI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001282063

**ORF Size:** 1200 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).

**RefSeq:** [NM\\_001282063.1](#), [NP\\_001268992.1](#)

**RefSeq Size:** 2090 bp

RefSeq ORF: 1203 bp  
 Locus ID: 8448  
 UniProt ID: [Q14183](#)

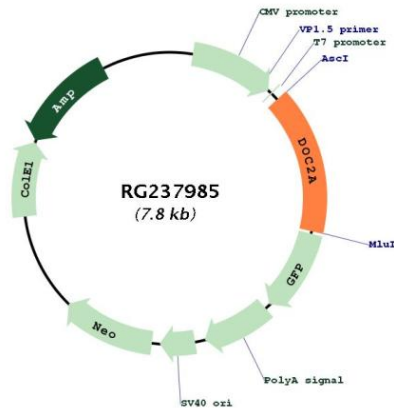
Cytogenetics: 16p11.2

Protein Families: Secreted Protein

MW: 44 kDa

**Gene Summary:** There are at least two protein isoforms of the Double C2 protein, namely alpha (DOC2A) and beta (DOC2B), which contain two C2-like domains. DOC2A and DOC2B are encoded by different genes; these genes are at times confused with the unrelated DAB2 gene which was initially named DOC-2. DOC2A is mainly expressed in brain and is suggested to be involved in Ca(2+)-dependent neurotransmitter release. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

**Product images:**



Circular map for RG237985