

Product datasheet for **RG227335**

SPDYA (NM_001142634) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPDYA (NM_001142634) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPDYA
Synonyms:	RINGO3; RINGOA; SPDY1; SPY1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG227335 representing NM_001142634 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGCACAATCAGATGTGTTGTGAGACACCACCTACTGTCCTGTTTATGTAAAATCAGGGTCAAATA
GATCACATCAGCCTAAAAAGCCATTACTCTGAAGCGTCTATTTGTAAGATAATTGGCAAGCATTGGA
AAAAAATACACATAATAACAACAAATCTAAACGCCCAAAGGACCTTGCTGGTTATACAGCGTCAGGAT
ATGACTGCTTTCTTTAAATTATTTGATGACGATTTAATTCAAGATTTCTGTGGATGGACTGCTGCTGTA
AAATTGCAGACAAGTATCTTTGGCTATGACCTTTGTTTATTTCAAGAGGGCTAAATTTACTATAAGTGA
GCATACCAGGATAAATTTCTTTATTGCTTTGTATCTGGCTAATACAGTTGAAGAAGATGAAGAAGAAACC
AAGTACGAAATTTTCCATGGGCTTTAGGAAAACTGGAGAAAAATGTTCCCTAATTTCTAAAGTTAA
GGGACCAGCTCTGGGATAGAATTGACTATAGGGCTATTGTAAGCAGGCGATGTTGTGAGGAGTTATGGC
CATTGCACCAACCCATTATCTGGCAAAGAGAACGTTCTGTTTCATCACAGTGGAGCTGTGAGAACTAC
AACAGAGATGAAGTTCAGCTGCCCGGGGACCTAGTGCCACACCAGTAGATTGTTCACTCTGTGGTAAAA
AAAGAAGATATGTTAGACTGGGATTGTCTTCATCATCATCTTTATCCAGTCATACAGCAGGGGTGACAGA
AAAACATTCTCAGGACTCATAACTCACTGTCAATGGACATAATAGGTGATCCTTCTCAAGCTTATACT
GGTTCTGAAGTAGTCAATGACCATCAATCAAATAAAGGAAAGAAAATAATTTCTGAAGAAAGACAAAT
CTATGGAGTGTTTACAGGAAGTGAAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG227335 representing NM_001142634
Red=Cloning site Green=Tags(s)

MRHNQMCCEPPTVTVYVYKSGSNRSHQPKKPITLKRICKDNWQAFKNTNHNKSKRPGKPLVIQRQD
 MTAFFKLFDDDLIQDFLWMDCCCKIADKYLLAMTFVYFKRAKFTISEHTRINFFIALYLANTVEEDEEET
 KYEIFPWALGKNWRKLPNFKLRDQLWDRIDYRAIVSRRCCEEVMAIAPTHYIWQRERSVHHSGAVRNY
 NRDEVQLPRGPSATPVDCSLCGKKRRYVRLGLSSSSSLSSHTAGVTEKHSQDSYNSLSMDIIGDPSQAYT
 GSEVVNDHQSNKGKKTNFLKDKKSMWFVTGSEE

TRTRPLE - GFP Tag - V

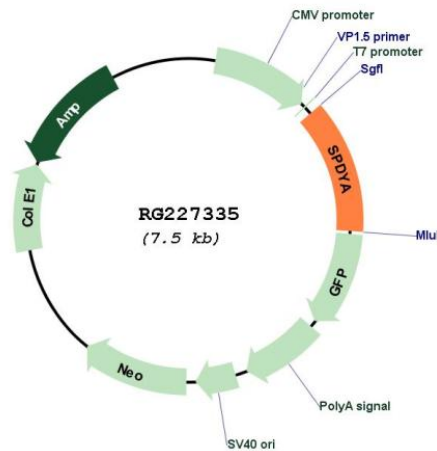
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001142634

ORF Size: 939 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_001142634.1 , NP_001136106.1
RefSeq Size:	1756 bp
RefSeq ORF:	942 bp
Locus ID:	245711
UniProt ID:	Q5MJ70
Cytogenetics:	2p23.2
Protein Pathways:	Oocyte meiosis, Progesterone-mediated oocyte maturation
Gene Summary:	Regulates the G1/S phase transition of the cell cycle by binding and activating CDK1 and CDK2 (PubMed:12972555). Contributes to CDK2 activation without promoting CDK2 phosphorylation, by inducing a conformation change of the CDK2 T-loop that obstructs the substrate-binding cleft prior to kinase activation (PubMed:28666995). Mediates cell survival during the DNA damage process through activation of CDK2 (PubMed:12839962). [UniProtKB/Swiss-Prot Function]