

Product datasheet for **RC227335**

SPDYA (NM_001142634) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPDYA (NM_001142634) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPDYA
Synonyms:	RINGO3; RINGOA; SPDY1; SPY1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227335 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGCACAATCAGATGTGTTGTGAGACACCACCTACTGTCCTGTTTATGTAATAATCAGGGTCAAATA
GATCACATCAGCCTAAAAAGCCATTACTCTGAAGCGTCTATTTGTAAGATAATTGGCAAGCATTGGA
AAAAATACACATAATAACAACAAATCTAAACGCCCAAAGGACCTTGCTGGTTATACAGCGTCAGGAT
ATGACTGCTTTCTTAAATTATTTGATGACGATTAATTCAAGATTTCTGTGGATGGACTGCTGCTGTA
AAATTGCAGACAAGTATCTTTGGCTATGACCTTTGTTTATTTCAAGAGGGCTAAATTTACTATAAGTGA
GCATACCAGGATAAATTTCTTTATTGCTTTGTATCTGGCTAATACAGTTGAAGAAGATGAAGAAGAACC
AAGTACGAAATTTTCCATGGGCTTTAGGAAAACTGGAGAAAAATGTTCCCTAATTTCTTAAAGTTAA
GGGACCAGCTCTGGGATAGAATTGACTATAGGGCTATTGTAAGCAGGCGATGTTGTGAGGAGGTTATGGC
CATTGCACCAACCCATTATCTGGCAAAGAGAACGTTCTGTTTCATCACAGTGGAGCTGTGAGAACTAC
AACAGAGATGAAGTTCAGCTGCCCGGGGACCTAGTGCCACACCAGTAGATTGTTCACTCTGTGGTAAAA
AAAGAAGATATGTTAGACTGGGATTGTCTTCATCATCATCTTTATCCAGTCATACAGCAGGGGTGACAGA
AAAACATTCTCAGGACTCATACTCACTGTCAATGGACATAATAGGTGATCCTTCTCAAGCTTACT
GGTTCTGAAGTAGTCAATGACCATCAATCAAATAAAGGAAAGAAAATAATTTCTTGAAGAAAGACAAAT
CTATGGAGTGTTTACAGGAAGTGAAGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227335 protein sequence
Red=Cloning site Green=Tags(s)

MRHNQMCCEPPTVTVYVYKSGSNRSHQPKKIPITLKRPICKDNWQAFKNTNHNKSKRPKGPCLVIQRQD
 MTAFFKLFDDDLIQDFLWMDCCCKIADKYLLAMTFVYFKRAKFTISEHTRINFFIALYLANTVEEDEEET
 KYEIFPWALGKNWRKLPNFKLRDQLWDRIDYRAIVSRRCCEEVMAIAPTHYIWQRERSVHHSGAVRNY
 NRDEVQLPRGPSATPVDCSLCGKKRRYVRLGLSSSSSLSSHTAGVTEKHSQDSYNSLSMDIIGDPSQAYT
 GSEVVNDHQSNKGKKTNFLKDKSMWF TGSEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6380_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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](#)

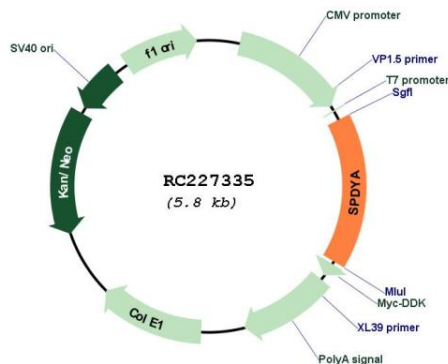
Cytogenetics: 2p23.2

Protein Pathways: Oocyte meiosis, Progesterone-mediated oocyte maturation

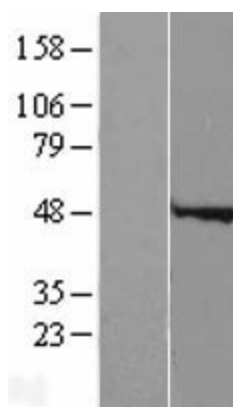
MW: 36.5 kDa

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]

Product images:



Circular map for RC227335



Western blot validation of overexpression lysate (Cat# [LY428224]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227335 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).