

Product datasheet for **RC204045**

14-3-3 sigma (SFN) (NM_006142) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	14-3-3 sigma (SFN) (NM_006142) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	14-3-3 sigma
Synonyms:	YWHAS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204045 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAGAGCCAGTCTGATCCAGAAGGCCAAGCTGGCAGAGCAGGCCGAACGCTATGAGGACATGGCAG
CCTTCATGAAAGGCGCCGTGGAGAAGGGCGAGGAGCTCTCCTGCGAAGAGCGAAACCTGCTCTCAGTAGC
CTATAAGAACGTGGTGGGCGCCAGAGGGCTGCCTGGAGGGTGTGTCCAGTATTGAGCAGAAAAGCAAC
GAGGAGGGCTCGGAGGAGAAGGGGCCGAGGTGCGTGAGTACCGGAGAAGGTGGAGACTGAGCTCCAGG
GCGTGTGCGACACCGTGTGGGCTGTGGACAGCCACCTCATCAAGGAGGCCGGGACGCCGAGAGCCG
GGTCTTCTACCTGAAGATGAAGGGTGACTACTACCGCTACCTGGCCGAGGTGGCCACCGGTGACGACAAG
AAGCGCATCATTGACTCAGCCCGGTGAGCCTACCAGGAGGCCATGGACATCAGCAAGAAGGAGATGCCGC
CCACCAACCCATCCGCCTGGGCTGGCCCTGAACTTTTCCGTCTTCCACTACGAGATCGCCAACAGCCC
CGAGGAGGCCATCTCTGGCCAAGACCACTTTTCGACGAGGCCATGGCTGATCTGCACACCTCAGCGAG
GACTCTACAAAGACAGCACCTCATCATGCAGCTGTGCGAGACAACCTGACACTGTGGACGGCCGACA
ACGCCGGGAAGAGGGGGCGAGGCTCCCAGGAGCCCCAGAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204045 protein sequence
 Red=Cloning site Green=Tags(s)

MERASLIQKAKLAEQAERYEDMAAFMKGAVEKGEELSCERNLLSVAYKNVVGQRAAWRVLSSIEQKSN
 EEGSEEKGPEVREYREKVELQGVCDTVLGLLDSHLIKEAGDAESRVFYLKMKGDYYRYLAEVATGDDK
 KRIIDSARSAYQEAMDISKEMPPTNP IRLGLALNFSVFHYEIANSPEEAISLAKTTFFDEAMADLHLLSE
 DSYKDSTLIMQLLRDNLTLWTADNAGEEGEAPQEPQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6065_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006142

ORF Size: 744 bp

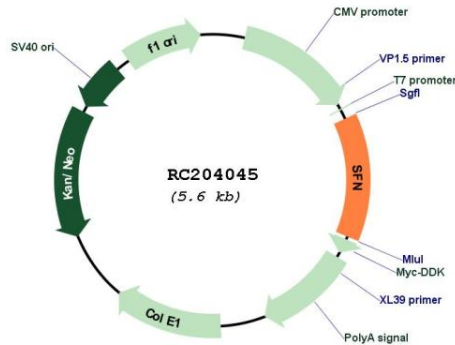
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

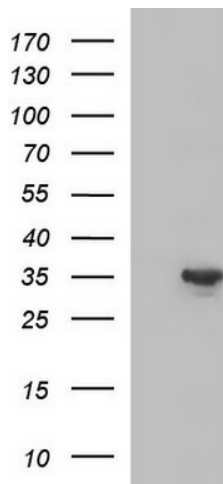
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_006142.5
RefSeq Size:	1336 bp
RefSeq ORF:	747 bp
Locus ID:	2810
UniProt ID:	P31947
Cytogenetics:	1p36.11
Domains:	14-3-3
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Cell cycle, p53 signaling pathway
MW:	27.8 kDa
Gene Summary:	This gene encodes a cell cycle checkpoint protein. The encoded protein binds to translation and initiation factors and functions as a regulator of mitotic translation. In response to DNA damage this protein plays a role in preventing DNA errors during mitosis. [provided by RefSeq, Aug 2017]

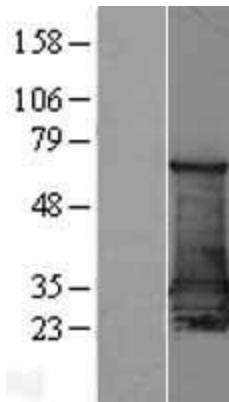
Product images:



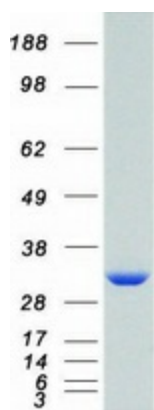
Circular map for RC204045



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SFN (Cat# RC204045, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SFN (Cat# [TA590217]). Positive lysates [LY401850] (100ug) and [LC401850] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401850]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204045 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SFN protein (Cat# [TP304045]). The protein was produced from HEK293T cells transfected with SFN cDNA clone (Cat# RC204045) using MegaTran 2.0 (Cat# [TT210002]).