

Product datasheet for **RG221040**

Smek1 (PPP4R3A) (NM_032560) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Smek1 (PPP4R3A) (NM_032560) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Smek1 |
| Synonyms: | FLFL1; KIAA2010; MSTP033; PP4R3A; smk-1; smk1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide
Sequence:

>RG221040 representing NM_032560
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGACCGACACCCGGCGCGGGTGAAGGTGTACACGCTCAACGAGGACCGGCAGTGGGACGACCGGGGCA
CCGGGCATGTGTCTGCTACGTGGAGCGGCTGAAGGCATGTCCCTGCTTGTGAGGGCTGAGAGCGA
CGTTCTCTACTTTAGAGTCGAAAATAAATCCTAACACTGCATACCAGAAAACAAGGACACTCTGATT
GTGTGGTCTGAAGCAGAAAATTATGACTTGGCCCTTAGCTTTCAAGAAAAAGCTGGATGTGATGAAATTT
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TAGAAAATGAGGGTTATATTAAGAGCTCTGGAGCTTTTCATGTGTGAAGATTTGGAAAATATTGA
AGGACTGCACCCTTGTATGAAATATCAAAGGCATCTTCTCTTGAATCGAACTGCTCTTTTTGAAGTT
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GAAAACACAGGAATTTCTAACAAAAACAGCCAAGTTAAAGAAGTGATCCCATATCAGATCCTGAGCT
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AGAGTTTGTGTCAGGAGGCACAACAGAAATGATGATGATATTTTGTCTCATCAACCTCATTATAGAACAT
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CAGACTGCCCAACTATTGGCACTTGTATTGGAATTGTTAACATTTTGTGTGGAGCACCATACCTACCACA
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ATCTACAACAAATCTGCCTGGTTCTCCGGGATCACCTGGATCCCAGGATCTCCAGGCTCTCCTGGATCC
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ATTTGATTCA

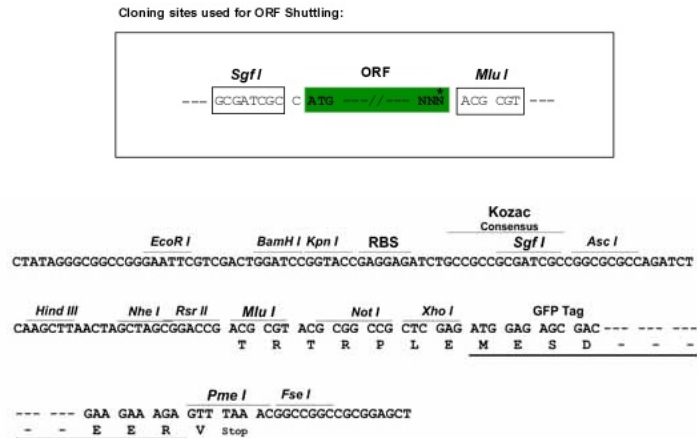
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG221040 representing NM_032560
Red=Cloning site Green=Tags(s)

MTDTRRRVKVYTLNEDRQWDDRGTGHVSSGYVERLKGMSLLVRAESDGSLLLLESKINPNTAYQKQDTLI
VWSEAENYDLALSFQEKAGCDEIWEKICQVQKDPVSDITQDLVDESEERFDDMSSPGLLELPSCEL SRL
EEIAELVASSLPSPLRREKLALALENEGVIKLEL FHVCELENIEGLHHL YEIIKGI FLLNRTALFEV
MFSEECIMDVIGCLEYDPAL SQPRKHREFLTKTAKFKEV IPI SDPELKQK IHQTYRVQYIQDMVLP TSPV
FEENMLSTLHSF IFFNKVEIVGMLQEDEKFL TDLFAQLTDEATDEEKRQELVNFLKEFCAFSQTLPQNR
DAFFKTL SNMGILPALEVILGMDDTQVRSAA TDIFS YLVEYNPSMVREFVMQEAQQNDDILLINLIEH
MICDTPDELGGAVQLMGLLRTLVDPENMLATANKTEKTEFLGFFYKHC MHVLTAPLLANTTEDKPSKDDF
QTAQLLALVLELLTFCVEHHTYHIKNYIINKDILRRVLVLMASKHAF LALCALRFKRKIIGLKDEFYNRY
IMKSFLFEPVVKAF LNNGSRYNLMNSAI IEMFEFIRVEDIKSLTAHV IENYWKAL EDVDYVQTFKGLKLR
FEQQRERQDNPKLDSMRSILRNHRYRRDARTLEDEEEMWFNTDEDDMEDGEAVVSPDKTKNDDDIMDPI
SKFMERKKLKESEEKVELLKTNL SGRQSPSFKLSLSSGKTNLTSQSSTNLP GSPGSPGSPGSPGSPG
VPKNTSQTAAITTKGGLVGLVDYPPDDEDDDEDEDKEDTLPLSKKAKFDS

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_032560

ORF Size: 2460 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_032560.3](#), [NP_115949.3](#)

RefSeq Size: 4449 bp

RefSeq ORF: 2462 bp

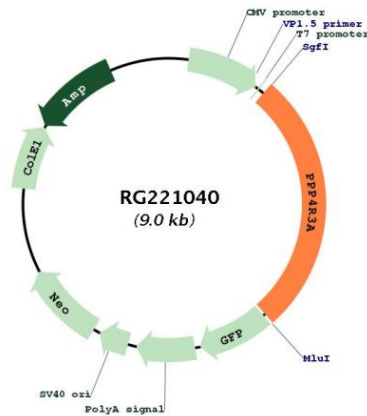
Locus ID: 55671

Cytogenetics: 14q32.12

Domains: DUF625

Gene Summary: Regulatory subunit of serine/threonine-protein phosphatase 4. May regulate the activity of PPP4C at centrosomal microtubule organizing centers. The PPP4C-PPP4R2-PPP4R3A PP4 complex specifically dephosphorylates H2AFX phosphorylated on 'Ser-140' (gamma-H2AFX) generated during DNA replication and required for DNA DSB repair.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG221040