

## Product datasheet for **RC220832**

### USP21 (NM\_001014443) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	USP21 (NM_001014443) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	USP21
Synonyms:	USP16; USP23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC220832 representing NM\_001014443  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCCCAGGCCTCTGAGCACCGCTGGGCGTACCCGAGAGCCACCTGTTAATATCCAGCCCCGAGTGG  
 GATCCAAGCTACCATTTGCCCCAGGGCCGCGAGCAAGGAGCGCAGAAACCCAGGCTCTGGGCCAAACCC  
 CATGTTACGACCTCTGCCTCCCCGGCCAGGTCTGCCTGATGAACGGCTCAAGAACTGGAGCTGGGACGG  
 GGACGGACCTCAGGCCCTCGTCCAGAGGCCCCCTTCGAGCAGATCATGGGGTCCCTGCCTGGCTCAC  
 CACCCCAACAGTGGCTTTCCTCTCCCATCTCGGACCAACTTAGCCCGTTCCAAGTCTGTGAGCAGTGG  
 GGACTTGCCTCAATGGGATTGCCTTGGGAGGGCACCCTGGCACCAGGAGAGCTTGGGGTGCACCTGAGC  
 CGCTTGGCCCTCCGGCTGAGCCACCCACTTTGAGACGTAGCACTTCTCTCCGCCCTAGGGGGCTTTC  
 CTGGACCCCTACCTGTTGAGCATAACGACAGAGCCCTGCTTCCCATGGCTCCTCCACATGATATC  
 CGCCCGTCTCTGAGCCTTTACTCTGATGACAAGATGGCTCATCACACTCCTTCTGGGCTCTGGT  
 CATGTTGGCCTTCGAAACCTGGGAAACAGTGTCTCTGAATGCTGTGCTGCAAGTGTCTGAGCAGCACTC  
 GACCTTCTCGGGACTTCTGTCTGAGAAGGACTTCCGGCAAGAGGTGCCTGGAGGAGGCCAGCCCAAGA  
 GCTCACTGAAGCCTTTCAGATGTGATTGGTGCCTCTGGCACCCCTGACTCCTGCGAAGCTGTGAATCCT  
 ACTCGATTCCGAGCTGTCTTCCAGAAATATGTTCCCTCCTTCTCTGGATACAGCCAGCAGGATGCCCAAG  
 AGTTCTGAAGCTCCTCATGGAGCGCTACACCTTGAATCAACCGCCGAGGCGCCGGGCTCCACCGAT  
 ACTTGCCAATGGTCCAGTTCCTCTCCACCCCGCCGAGGAGGGGCTCTGCTAGAAGAACCTGAGTTAAGT  
 GATGATGACCGAGCCAACCTAATGTGAAACGTTACCTGGAGCGAGAGGACAGCAAGATTGTGGACCTGT  
 TTGTGGCCAGTTGAAAAGTTGTCTCAAGTGCCAGGCTGTGGTATCGCTCCAGACCTCGAGGTTTT  
 TTGTGACCTGTCCCTGCCATCCCCAAGAAAGGATTTGCTGGGGCAAGGTGTCTCTCGGGATTGTTTC  
 AACTTTTCACTAAGGAAGAAGACTAGAGTCGGAGAATGCCCCAGTGTGTGACCGATGTGCGCAGAAAA  
 CTCGAAGTACAAAAAGTTGACAGTACAAAGATTCCTCGAATCCTCGTCTCCATCTGAATCGATTTTC  
 TGCCTCCCGAGGCTCCATCAAAAAAGTTGAGTGGTGTAGACTTCCACTGCAGCGACTGAGCCTAGGG  
 GACTTTGCCAGTGACAAAGCCGGAAGTCTGTATACCAGCTGTATGCCCTTTCGAACCACTCAGGCAGCG  
 TCCACTATGGCCACTACACAGCCCTGTGCCGTGCCAGACTGGTGGCATGTCTACAATGACTCTCGTGT  
 CTCCCCTGTGAGTAAAACAGGTGGCATCCAGCGAGGGCTACGTGCTGTCTACCAACTGATGCAGGAG  
 CCACCCCGTGCCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220832 representing NM\_001014443  
 Red=Cloning site Green=Tags(s)

MPQASEHRLGRTREPPVNIQPRVGSKLPFAPRARSKERRNPGSGPNMLRPLPPRPGLPDERLKKLELGR  
 GRTSGPRPRGPLRADHGVPPLPGSPPTVALPLPSRTNLARSKSVSSGDLRPMGIALGGHRGTGELGAALS  
 RLALRPEPPTLRRSTSLRRLGGFPGPPTLFSIRTEPPASHGSFHMSARSSEPFYSDDKMAHHTLLLSGS  
 HVGLRNLGNTCFLNAVLQCLSSTRPLRDFCLRRDFRQEVPGGGRAQELTEAFADVIGALWHPDSCEAVNP  
 TRFRAVFQKYVPSFSGYSQDAQEFLLKLLMERLHLEINRRGRRAPPILANGPVPSPPRRGGALLEEPELS  
 DDDRANLMMWKRYLEREDSKIVDLFVGLKSLCKCQACGYRSTTFEVFCDSLPIPKKGFAGGKVSRLRDCF  
 NLFTKEELESENAPVCDRCRQKTRSTKLLTVQRFPRILVLHLNRFASRGSIKKSSVGVDFPLQRLSLG  
 DFASDKAGSPVYQLYALCNHSGSVHYGHYALCRCQGTGWHVYNDSRVSPVSENQVASSEGYVLFYQLMQE  
 PPRCL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3115\\_c05.zip](https://cdn.origene.com/chromatograms/mg3115_c05.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001014443

**ORF Size:** 1695 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\\_001014443.3](#)

**RefSeq Size:** 2358 bp

**RefSeq ORF:** 1698 bp

**Locus ID:** 27005

**UniProt ID:** [Q9UK80](#)

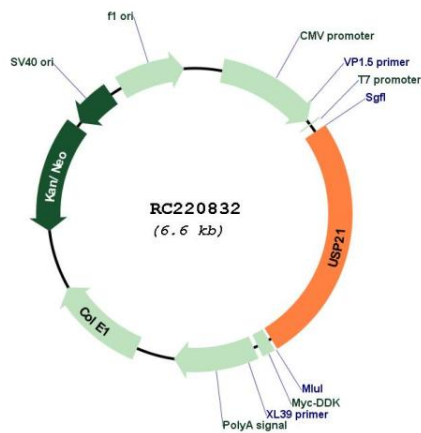
**Cytogenetics:** 1q23.3

**Protein Families:** Druggable Genome, Protease

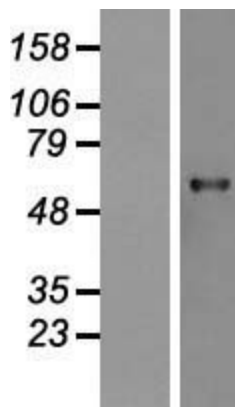
**MW:** 62.5 kDa

**Gene Summary:** This gene encodes a member of the C19 peptidase family, also known as family 2 of ubiquitin carboxy-terminal hydrolases. The encoded protein cleaves ubiquitin from ubiquitinated proteins for recycling in intracellular protein degradation. The encoded protein is also able to release NEDD8, a ubiquitin-like protein, from NEDD8-conjugated proteins. This gene has been referred to as USP16 and USP23 but is now known as USP21. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2016]

**Product images:**



Circular map for RC220832



Western blot validation of overexpression lysate (Cat# [LY423066]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220832 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).