

Product datasheet for **RN208788**

Usp28 (NM_001108144) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Usp28 (NM_001108144) Rat Untagged Clone
Tag: Tag Free
Symbol: Usp28
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN208788 representing NM_001108144
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**C

ATGACTGCGGAGCTGCAGCAGGACGACGCGCGGGGGCGGCGGACGGCCATGGCTCGAGCTGCCAGATGC
 TGTTAAATCAGCTGCGAGAAATCACGGGCATCCAGGATCCTTCTTTCTCATGAAGCATTAAAGGCCAG
 TAATGGTGACATCACCCAGGCTGTCAGCCTTCTCACAGACCAAAGAGTTAAGGAGCCAGTCACGACACA
 GCTGCTACAGAACCATCTGAAGTAGAAGAGAGTGTACCAGCAAAGATCTCTTAGCAAAAGTGATAGACC
 TTACACATGACAACAAAGATGACCTTCAGGCAGCCATTGCCTTGAGTCTCCTGGAGTCTCCTAACATTCA
 GACTGACAGCAGAGATCTTAATAGAATACATGAAGCTAACTCTGCAGAGACTAAACGATCAAAGAGAAAA
 CGCTGTGAAGTTTGGGAGAAAAACCACAATCCCAATAACTGGAGGAGAGTGGATGGTTGGCCAGTTGGGC
 TGAAAAATGTTGGCAACACATGTTGGTTCAGTGTGTTATTGAGTTGCCTGAATTTGAAGACTGTTCT
 CAGTTACAGCCTGCCACAGAACATTCTGAAAATTGTCGAAGTCACACTGAAAAAGAAATATCATGTTT
 ATGCAAGAGCTTCAGTATTTATTGCTCTGTTATTGGGATCAAATCGGAAATTTGTAGATCCTTCTGCTG
 CCCTGGATCTACTGAAGGGGCCTTCCGATCCTCAGAGGAGCAACAGCAAGATGTGAGTGAATTCACACA
 CAAGCTCTGGATTGGCTGGAGGATGCGTTCAGCTAGCTGTTAATGTTAACAGCAATCCAGGACTAAA
 TCTGAAAAACCCATGGTGCAGCTGTTCTACGGTACCTTCTGACAGAAGGGTCCGAGAAGGAAAAACCT
 TTTGTAACAACGAGACCTTCGGCCAGTACCCTTTCAGGTAACCGTTACCACAACCTTAGACGAGTGTTT
 GGAAGGGGCCATGGTGAAGGTGACATTGCGCTGCTTCTTCTGATCGCTCAGTGAATACGGACAAGAG
 CGTTGGTTTACAAAGTGCCTCCAGTGTGACCTTCGAACTCTCCAGATTTGAGTTAATCAGTCTCTTG
 GGCAGCCTGAGAAAATTCATAAAGCTGGAATTTCTCAGGTTATTTATATGGATAGGTACATGTACAA
 AAGCAAAGAGCTTATCCGAAGTAAGAGAGAGAGCATTCGAAAGTTGAAGGAGGAAATACAAGTTCTGCAG
 CAGAAATTAGAAAGGTATGTGAAGTACGGCTCCGTCATCTCGTCTCCACTCCCCGACATGTTGAAAT
 ACGTTATTGAATTTGCCAGTACAAAACCTGCCTCTGAAAGCTGTCTGTCTGGAAGTGTGAGCATATGAC
 GTTACCACTTCTTCTGTGCACTGCCGATTTCTGACCTCACAGCCAAGGAAAAGTTCAAGTCCAAAAAGC
 TGCTCTCAGAATGCTGAGGGTTCCTTTTCTCTCCGGAAGATGCTCTACCCAACCTCTGAGGTAATGAATG
 GGCCATTTACTTCTCCTCACTTCCCTGGAAATGCCTGCACCCACCAGCTCCTCGGACAGTCACAGA
 TGAGGAAATGAATTTGTTAAGACCTGTCTTCAGAGGTGGCGGAGTGAATTTGAACAGGATATACAAGAC



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TTAAAGAATTGTATCTCGAGCACCACCCAGGCTATTGAGCAGATGTA CTGTGATCCTCTTCTTCGTCAGG
TGCCTTATCGCTTACATGCAGTTCTTGTTTCATGAAGGACAAGCCAGTGCAGGGCACTACTGGGCGTACAT
CTATAACCAGCCCCGGCAGATCTGGCTCAAATACAACGACATCTCTGTCACTGAGTCTTCTGGGAAAGAA
CTTGAAAGAGATTCTTACGGGGGCTGAGAAATGTCAGCGCATACTGCTTGTATATCAATGACAAGT
TGCCCCACTGCAGTGCAGAGGCAGCGCATGGTGAATCTGATCAGACTGCAGAAGTGAAGCCCTGTCTGT
GGAATCAGGCAGTACATTTCAGGAAGATAACTGGAGTTTGGAGCAAGAGGTGGAGGAATGGGAGGAAGAA
CAGTCTGTAAAGATCCACAGATGGAGTCTCCCAAACCTCTTCTCACAGGATTTTTCCACATCACAAG
AGTCTTCAGCAGCGTCTCGCATGGCGTTCGATGTTTGTCTTCTGAACATGCTGTGATTGCAAAGGAGCA
GACTGCCAGGCCATCGCAAACACGGCTCATGCCTATGAGAAGAGCGGGGTAGAAGCAGCCTTGAGTGA
GTGATGCTGAGCCCTGCCATGCAAGGGGTCTCCTGGCCATAGCTAAGGCGCGCCAGACCTTTGACCGAG
ACGGGTCTGAAGCAGGGCTTATTAAGGCATTTTCATGAAGAGTACTCCAGGCTCTATCAGCTTGCCAAAGA
GACACCACCTCTCACAGTATCCTCGCCTTCAGCATGTTCTCGTCTACTTTTTCCAAAATGAAGCACCC
AAGAGGGTAGTAGAACGAACCTTCTGGAACAGTTTGCAGATAGAAACCTTAGCTATGATGAGAGATCTA
TCAGTATCATGAAGGTGGCTCAGGCCAAACTGATGGAATTTGGTCCAGAGGACATGAACATGGAAGAGTA
TAAGAGGTGGCATGAAGACTATAGTCTGTTCCGAAAGGTCTGTGTACCTGCTAACGGGCTGGAACCTC
TTCCAAAAGGAAAGTACCAGGAAGCTTTGTCCTACCTGGTGTACGCGTACCAGAGCAATGCTGGCCTGC
TGGTGAAGGGGCCCGCAGGGCGTGAAGGAGTCTGTGATTGCTTTGTACCGCAGAAAATGCCTTCTGGA
GTTGAATGCCAAGGCTGCTTCTCTTTTTGAAACAAATGACGACCATTTCTGTAACAGAGGGCATTAAATGTG
ATGAATGAGCTGATCATTCCCTGCATCCACCTGATCATTAAATAATGACATTTCCAAGGACGACCTTGATG
CCATCGAGGTCATGAGGAACCACTGGTCTTACCTGGGGAAGGACATCGCAGAAAATCTGCAGCTGTG
TTTAGGGGAGTTCCTACCCAGGCTTCTAGATCCTTCCGCAGAAATCATCGTCTAAAGGAGCCTCCAAC
ATTCGACCGAATTCTCCCTATGATCTTTCAGCCGGTTTCAGCTGTCTGGAGTCCATTCAAGGAGTTT
CAACAGTAACAGTGAAGTAA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-RsrII
ACCN:	NM_001108144
Insert Size:	3240 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_001108144.1, NP_001101614.1</u>
RefSeq Size:	4171 bp
RefSeq ORF:	3240 bp

Locus ID: 315639

UniProt ID: [D3Z196](#)

Cytogenetics: 8q23

Gene Summary: Deubiquitinase involved in DNA damage response checkpoint and MYC proto-oncogene stability. Involved in DNA damage induced apoptosis by specifically deubiquitinating proteins of the DNA damage pathway such as CLSPN. Also involved in G2 DNA damage checkpoint, by deubiquitinating CLSPN, and preventing its degradation by the anaphase promoting complex/cyclosome (APC/C). In contrast, it does not deubiquitinate PLK1. Specifically deubiquitinates MYC in the nucleoplasm, leading to prevent MYC degradation by the proteasome: acts by specifically interacting with FBXW7 (FBW7alpha) in the nucleoplasm and counteracting ubiquitination of MYC by the SCF(FBXW7) complex. Deubiquitinates ZNF304, hence preventing ZNF304 degradation by the proteasome and leading to the activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) in a subset of colorectal cancers (CRC) cells.[UniProtKB/Swiss-Prot Function]