

Product datasheet for **RC202624**

USP5 (NM_003481) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	USP5
Synonyms:	ISOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC202624 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

 TTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

 ATGGCGGAGCTGAGTGAGGAGGCGCTGCTGTCACTATTACCGACGATCCGGTCCCTAAGGCTGGAGACC
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Protein Sequence: >RC202624 protein sequence
 Red=Cloning site Green=Tags(s)

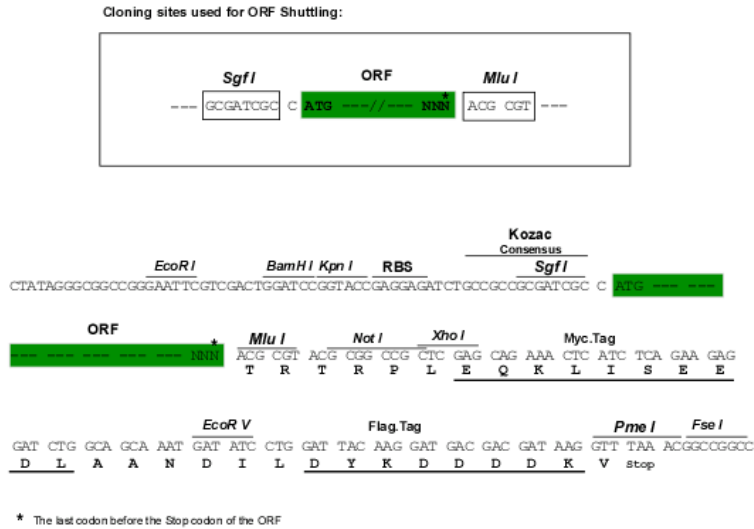
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Chromatograms: https://cdn.origene.com/chromatograms/mk6209_f01.zip

Restriction Sites: SgfI-MluI

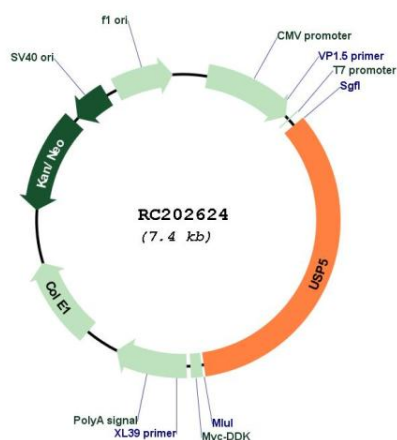
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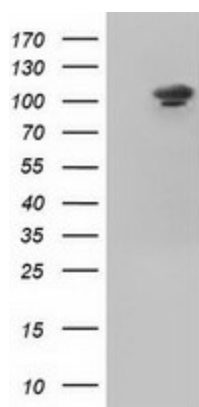
ACCN:	NM_003481
ORF Size:	2505 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_003481.3</u>
RefSeq Size:	3130 bp
RefSeq ORF:	2508 bp
Locus ID:	8078
UniProt ID:	<u>P45974</u>
Cytogenetics:	12p13.31
Domains:	UBA, UCH, zf-UBP
Protein Families:	Druggable Genome, Protease
MW:	93.3 kDa
Gene Summary:	Ubiquitin (see MIM 191339)-dependent proteolysis is a complex pathway of protein metabolism implicated in such diverse cellular functions as maintenance of chromatin structure, receptor function, and degradation of abnormal proteins. A late step of the process involves disassembly of the polyubiquitin chains on degraded proteins into ubiquitin monomers. USP5 disassembles branched polyubiquitin chains by a sequential exo mechanism, starting at the proximal end of the chain (Wilkinson et al., 1995 [PubMed 7578059]).[supplied by OMIM, Mar 2010]

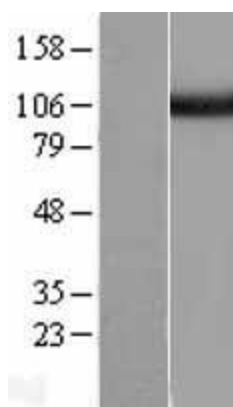
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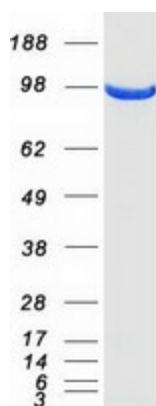
Circular map for RC202624



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY USP5 (Cat# RC202624, 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-USP5 (Cat# [TA501290]). Positive lysates [LY418652] (100ug) and [LC418652] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418652]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202624 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified USP5 protein (Cat# [TP302624]). The protein was produced from HEK293T cells transfected with USP5 cDNA clone (Cat# RC202624) using MegaTran 2.0 (Cat# [TT210002]).