

## Product datasheet for RC215768

### IL2 Receptor alpha (IL2RA) (NM\_000417) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IL2 Receptor alpha (IL2RA) (NM_000417) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL2 Receptor alpha
Synonyms:	CD25; IDDM10; IL2R; IMD41; p55; TCGFR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215768 representing NM_000417 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**

ATGGATTCATACCTGCTGATGTGGGACTGCTCACGTTTCATCATGGTGCCTGGCTGCCAGGCAGAGCTCTGTGACGATGACCCGCCAGAGATCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTGAACTGTGAATGCAAGAGAGGTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAAACTTAGCCACTCGTCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAACCTGAAGAACAGAAAGAAAGAAAACCACAGAAATGCAAAGTCCAATGCAGCCAGTGGAACAAGCGAGCCTTCCAGGTCAGTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTCGTGGTGGGCGAGATGGTTTATTATCAGTGCCTCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCACGGGAAGACAAGGTGGACCCAGCCCAGCTCATATGCACAGGTGA AATGGAGACCAGTCAGTTTCCAGGTGAAGAGAAGCCTCAGGCAAGCCCCGAAGGCCGCTCTGAGAGTGAGACTTCCTGCCTCGTCACAACAACAGATTTTCAAATACAGACAGAAATGGCTGCAACCATGGAGACGTCCA TATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTTTTCTGCTGATCAGCGTCTCCTCCTGAG TGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC215768 representing NM\_000417  
Red=Cloning site Green=Tags(s)

MDSYLLMWGLLTFIMVPGQAE LCDDDPPEIPHATFKAMAYKEG TMLNCECKRGFRRIKSGSLYMLCTGN  
 SSHSSWDNQCQCTSSATRN TTKQVTPQPEEQKERKTTEMQSPMQPVDQASLPGHCREPPPWENEATERIY  
 HFVVGQMVYYYQCVQGYRALHRGPAESVCKMTHGKTRWTQPQLICTGEMETSQFPGEKPKQASPEGRPESE  
 TSCLVTTTDFQIQTEMAATMETSIFTTEYQVAVAGCVFLLISVLLLSGLTWQRRQRKSRRTI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1478\\_g02.zip](https://cdn.origene.com/chromatograms/ja1478_g02.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\_000417

**ORF Size:** 816 bp

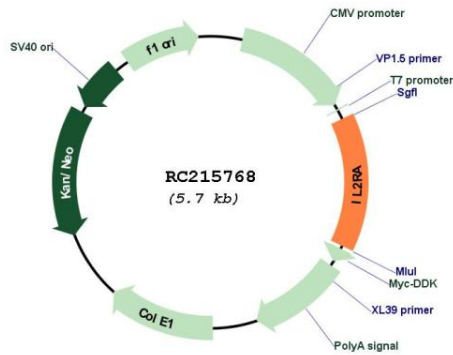
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

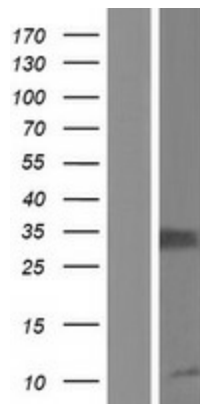
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_000417.3</u>
<b>RefSeq Size:</b>	2308 bp
<b>RefSeq ORF:</b>	819 bp
<b>Locus ID:</b>	3559
<b>UniProt ID:</b>	<u>P01589</u>
<b>Cytogenetics:</b>	10p15.1
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, Endocytosis, Hematopoietic cell lineage, Jak-STAT signaling pathway
<b>MW:</b>	30.82 kDa
<b>Gene Summary:</b>	The interleukin 2 (IL2) receptor alpha (IL2RA) and beta (IL2RB) chains, together with the common gamma chain (IL2RG), constitute the high-affinity IL2 receptor. Homodimeric alpha chains (IL2RA) result in low-affinity receptor, while homodimeric beta (IL2RB) chains produce a medium-affinity receptor. Normally an integral-membrane protein, soluble IL2RA has been isolated and determined to result from extracellular proteolysis. Alternately-spliced IL2RA mRNAs have been isolated, but the significance of each is presently unknown. Mutations in this gene are associated with interleukin 2 receptor alpha deficiency. Patients with severe Coronavirus Disease 2019 (COVID-19), the disease caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), have significantly elevated levels of IL2R in their plasma. Similarly, serum IL-2R levels are found to be elevated in patients with different types of carcinomas. Certain IL2RA and IL2RB gene polymorphisms have been associated with lung cancer risk. [provided by RefSeq, Jul 2020]

Product images:



Circular map for RC215768



Western blot validation of overexpression lysate (Cat# [LY424732]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215768 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).