

## Product datasheet for **RC206933**

### **Rb (RB1) (NM\_000321) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Rb (RB1) (NM_000321) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rb
Synonyms:	OSRC; p105-Rb; p110-RB1; pp110; PPP1R130; pRb; RB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC206933 representing NM\_000321  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
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**Protein Sequence:** >RC206933 representing NM\_000321  
 Red=Cloning site Green=Tags(s)

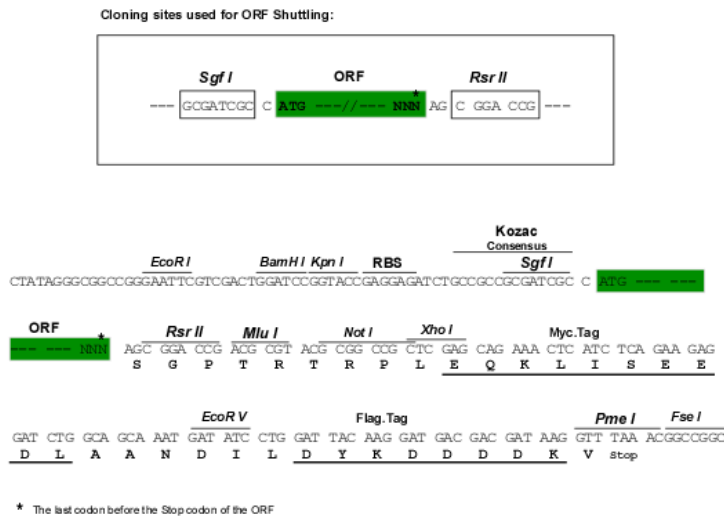
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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8119\\_g04.zip](https://cdn.origene.com/chromatograms/mk8119_g04.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**

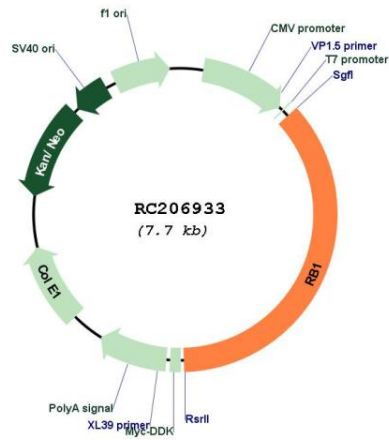


**ACCN:** NM\_000321

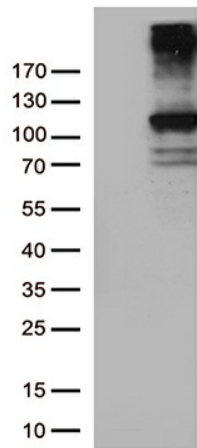
**ORF Size:** 2784 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>	<a href="#">NM_000321.3</a>
<b>RefSeq Size:</b>	4772 bp
<b>RefSeq ORF:</b>	2787 bp
<b>Locus ID:</b>	5925
<b>UniProt ID:</b>	<a href="#">P06400</a>
<b>Cytogenetics:</b>	13q14.2
<b>Domains:</b>	RB_B, RB_A, CYCLIN
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Bladder cancer, Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer
<b>MW:</b>	106.6 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a negative regulator of the cell cycle and was the first tumor suppressor gene found. The encoded protein also stabilizes constitutive heterochromatin to maintain the overall chromatin structure. The active, hypophosphorylated form of the protein binds transcription factor E2F1. Defects in this gene are a cause of childhood cancer retinoblastoma (RB), bladder cancer, and osteogenic sarcoma. [provided by RefSeq, Jul 2008]

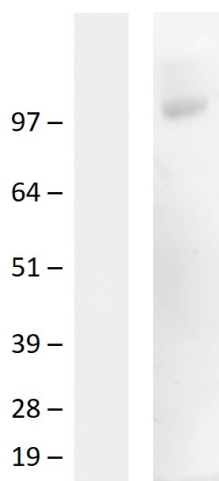
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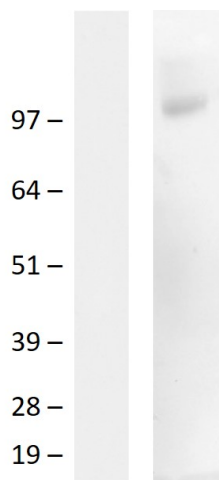
Circular map for RC206933



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RB1 (Cat# RC206933, 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-RB1 mouse monoclonal antibody.1:500`



Western blot validation of overexpression lysate (Cat# [LY424802]) using an anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206933 using transfection reagent PEI



Western blot validation of overexpression lysate (Cat# [LY424802]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206933 using transfection reagent PEI