

## Product datasheet for **RC216590**

### CD45 (PTPRC) (NM\_002838) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD45 (PTPRC) (NM_002838) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD45
Synonyms:	B220; CD45; CD45R; GP180; L-CA; LCA; LY5; T200
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216590 representing NM_002838. Blue=ORF Red=Cloning site Green=Tag(s)

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**Protein Sequence:** >Peptide sequence encoded by RC216590  
 Blue=ORF Red=Cloning site Green=Tag(s)

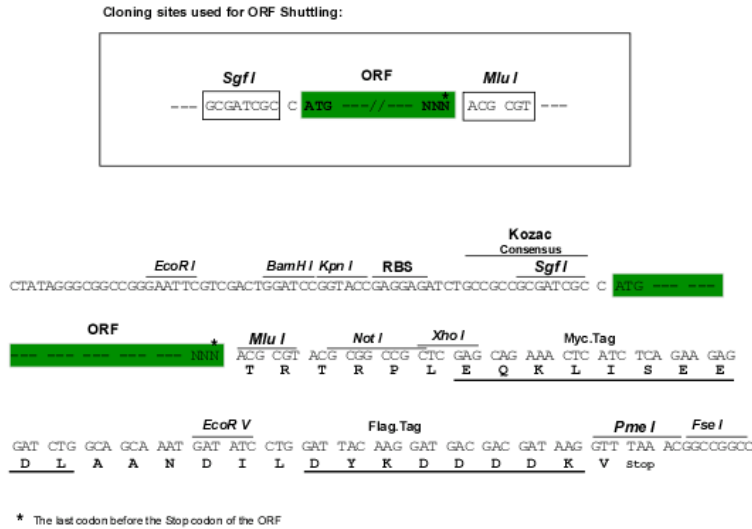
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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6204\\_e05.zip](https://cdn.origene.com/chromatograms/mk6204_e05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



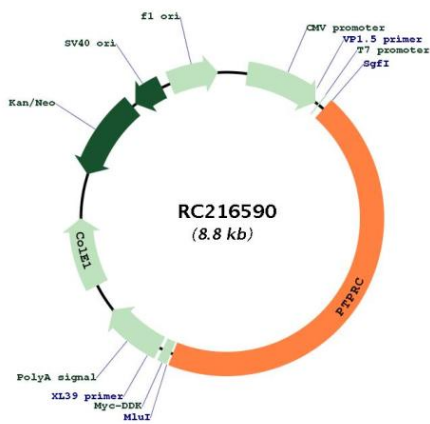
**ACCN:** NM\_002838

**ORF Size:** 3912 bp

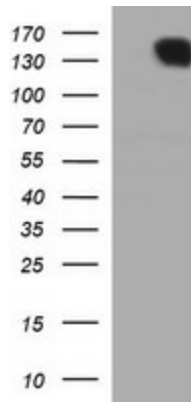
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_002838.3</a>
<b>RefSeq Size:</b>	5026 bp
<b>RefSeq ORF:</b>	3921 bp
<b>Locus ID:</b>	5788
<b>UniProt ID:</b>	<a href="#">P08575</a>
<b>Cytogenetics:</b>	1q31.3-q32.1
<b>Domains:</b>	Y_phosphatase, PTPc_motif, FN3
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Phosphatase, Transmembrane
<b>Protein Pathways:</b>	Cell adhesion molecules (CAMs), Fc gamma R-mediated phagocytosis, Primary immunodeficiency, T cell receptor signaling pathway
<b>MW:</b>	147.3 kDa

**Gene Summary:**

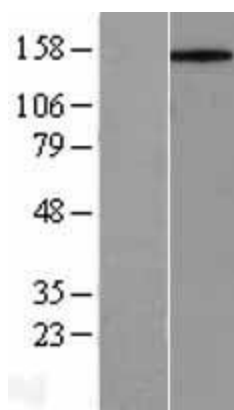
The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitosis, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq, Jun 2012]

**Product images:**


Circular map for RC216590



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PTPRC (Cat# RC216590, 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-PTPRC (Cat# [TA506567]). Positive lysates [LY401003] (100ug) and [LC401003] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401003]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216590 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).