

## Product datasheet for **RC209900L4V**

### PRKAR2B (NM\_002736) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	PRKAR2B (NM_002736) Human Tagged ORF Clone Lentiviral Particle
Symbol:	PRKAR2B
Synonyms:	PRKAR2; RII-BETA
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_002736
ORF Size:	1254 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC209900).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_002736.2</a>
RefSeq Size:	3678 bp
RefSeq ORF:	1257 bp
Locus ID:	5577
UniProt ID:	<a href="#">P31323</a>
Cytogenetics:	7q22.3
Domains:	cNMP, RIIa
Protein Families:	Druggable Genome



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**Protein Pathways:** Apoptosis, Insulin signaling pathway

**MW:** 46.3 kDa

**Gene Summary:** cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. The protein encoded by this gene is one of the regulatory subunits. This subunit can be phosphorylated by the activated catalytic subunit. This subunit has been shown to interact with and suppress the transcriptional activity of the cAMP responsive element binding protein 1 (CREB1) in activated T cells. Knockout studies in mice suggest that this subunit may play an important role in regulating energy balance and adiposity. The studies also suggest that this subunit may mediate the gene induction and cataleptic behavior induced by haloperidol. [provided by RefSeq, Jul 2008]