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Product datasheet for RC203818

Integrin beta 1 (ITGB1) (NM_002211) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin beta 1 (ITGB1) (NM_002211) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Integrin beta 1
Synonyms:	CD29; FNRB; GPIIA; MDF2; MSK12; VLA-BETA; VLAB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC203818 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATTTACAACCAATTTTCTGGATTGGACTGATCAGTTCAGTTTGCTGTGTGTTTGCTCAAACAGATG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence:

>RC203818 protein sequence
Red=Cloning site Green=Tags(s)

MNLQPIFWIGLISSVCCVFAQTDENRCLKANAKSCGECIQAGPNCGWCTNSTFLQEGMPTSARCDDLEAL
KKKGCPPDDIENPRGSKDIKKNKNVTNRSKGTAEKLKPEDITQIQPQQLVLRLRSGEPQTFTLKFKRAED
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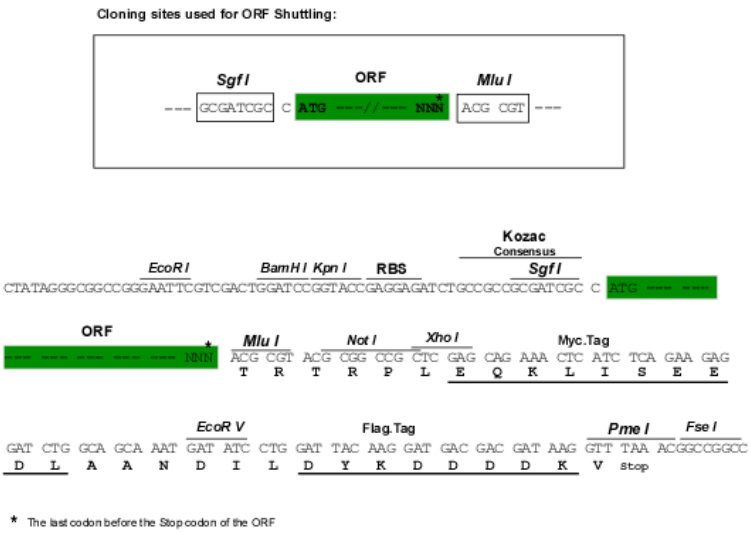
Chromatograms: https://cdn.origene.com/chromatograms/mk6140_a12.zip

Restriction Sites: SgfI-MluI

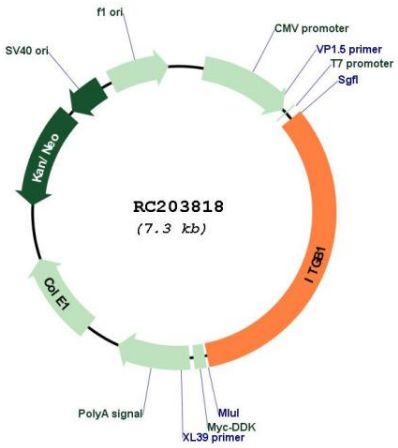
Cloning Scheme:



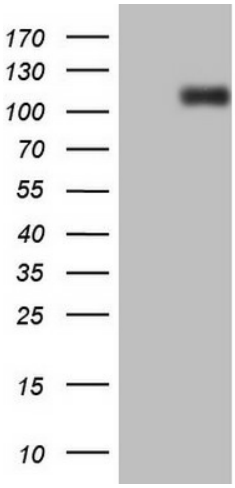
ACCN:	NM_002211
ORF Size:	2394 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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:	NM_002211.4
RefSeq Size:	3879 bp
RefSeq ORF:	2397 bp
Locus ID:	3688
UniProt ID:	P05556
Cytogenetics:	10p11.22
Domains:	INB, PSI
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Axon guidance, Cell adhesion molecules (CAMs), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Leukocyte transendothelial migration, Pathogenic Escherichia coli infection, Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer
MW:	88.4 kDa
Gene Summary:	Integrins are heterodimeric proteins made up of alpha and beta subunits. At least 18 alpha and 8 beta subunits have been described in mammals. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. This gene encodes a beta subunit. Multiple alternatively spliced transcript variants which encode different protein isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

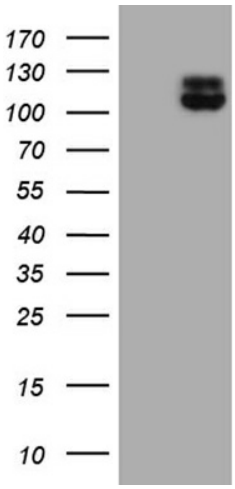
Product images:



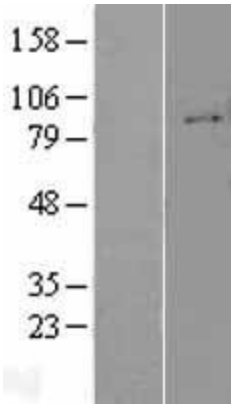
Circular map for RC203818



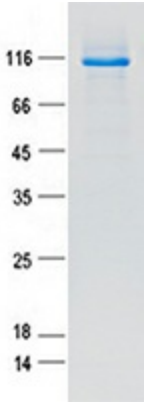
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY ITGB1 (RC203818, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ITGB1 (1:500).



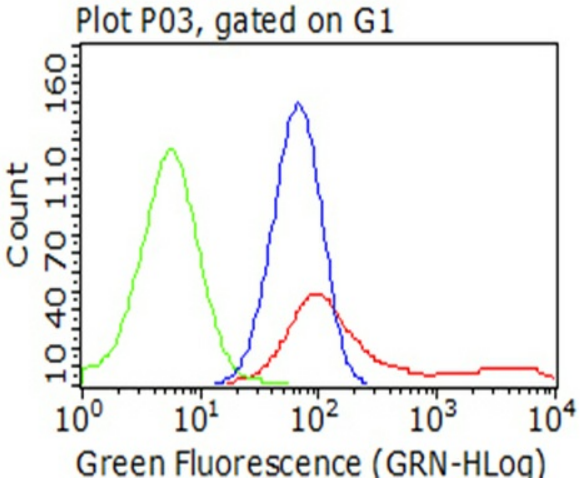
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ITGB1 (Cat# RC203818, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ITGB1 (Cat# [TA807138])(1:500). Positive lysates [LY400805] (100ug) and [LC400805] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY408839]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC215247] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITGB1 protein (Cat# [TP303818]). The protein was produced from HEK293T cells transfected with ITGB1 cDNA clone (Cat# RC203818) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells transfected with either RC203818 overexpress plasmid (Red), compared to an IgG isotype control, (Green) or empty vector control plasmid (Blue) were immunostained by anti-ITGB1antibody ([TA806909]), and then analyzed by flow cytometry (1:100).