

## Product datasheet for **SC314732**

### Integrin beta 1 (ITGB1) (NM\_033668) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin beta 1 (ITGB1) (NM_033668) Human Untagged Clone
Tag:	Tag Free
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)



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**Fully Sequenced ORF:** >SC314732 representing NM\_033668.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
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TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_033668  
**Insert Size:** 2406 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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><a href="#">NM_033668.2</a></u>
<b>RefSeq Size:</b>	3739 bp
<b>RefSeq ORF:</b>	2406 bp
<b>Locus ID:</b>	3688
<b>UniProt ID:</b>	<u><a href="#">P05556</a></u>
<b>Cytogenetics:</b>	10p11.22
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	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
<b>MW:</b>	88.9 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]

Transcript Variant: This variant (1D) includes an alternate exon, known as exon D, which results in a frameshift in the 3' coding region, compared to variant 1A. The resulting isoform (1D) has a distinct and longer C-terminus, compared to isoform 1A. This variant lacks full-length transcript support; its exon combination is predicted based on partial human transcript alignments, homologous transcript alignments including full-length cow mRNA BC114107.1, and data in the literature, including PMIDs 7544298, 7545396, 8567725 and 11779688, which consider this to be a functionally significant variant. This variant lacks a 5' UTR due to alternative splicing choices upstream of the CDS, and uncertainty about which alternative promoter is used. Sequence Note: The RefSeq transcript and protein were derived from transcript and genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.