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Product datasheet for SC118747

CD49b (ITGA2) (NM_002203) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD49b (ITGA2) (NM_002203) Human Untagged Clone
Tag:	Tag Free
Symbol:	CD49b
Synonyms:	BR; CD49B; GPIa; HPA-5; VLA-2; VLAA2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC118747 sequence for NM_002203 edited (data generated by NextGen Sequencing)

ATGGGGCCAGAACGGACAGGGGCCGCGCCGCTGCCGCTGCTGCTGGTGTTAGCGCTCAGT
CAAGGCATTTTAAATTGTTGTTTGGCCTACAATGTTGGTCTCCCAGAAGCAAAAATATTT
TCCGGTCCTTCAAGTGAACAGTTTGGCTATGCAGTGCAGCAGTTTATAAATCCAAAAGGC
AACTGGTTACTGGTTGGTTCACCCTGGAGTGGCTTTCCTGAGAACCGAATGGGAGATGTG
TATAAATGTCCTGTTGACCTATCCACTGCCACATGTGAAAAACTAAATTTGCAAACTTCA
ACAAGCATTCCAAATGTTACTGAGATGAAAACCAACATGAGCCTCGGCTTGATCCTCACC
AGGAACATGGGAACTGGAGGTTTTCTCACATGTGGTCCTCTGTGGGCACAGCAATGTGGG
AATCAGTATTACACAACGGGTGTGTGTTCTGACATCAGTCCTGATTTTCAGCTCTCAGCC
AGCTTCTCACCTGCAACTCAGCCCTGCCCTTCCCTCATAGATGTTGTGGTTGTGTGTGAT
GAATCAAATAGTATTTATCCTTGGGATGCAGTAAAGAATTTTTTGGAAAAATTTGTACAA
GGCCTGGATATAGGCCCCACAAAGACACAGGTGGGGTTAATTCAGTATGCCAATAATCCA
AGAGTTGTGTTTAACTTGAACACATATAAAACCAAAGAAGAAATGATTGTAGCAACATCC
CAGACATCCCAATATGGTGGGGACCTCACAAACACATTTGGAGCAATTCAATATGCAAGA
AAATATGCTTATTCAGCAGCTTCTGGTGGGCGACGAAGTGCTACAAAAGTAATGGTAGTT
GTAACTGACGGTGAATCACATGATGGTTCAATGTTGAAAGCTGTGATTGATCAATGCAAC
CATGACAATATACTGAGGTTTGGCATAGCAGTTCTTGGGTACTTAAACAGAAACGCCCTT
GATACTAAAAATTTAATAAAAGAAATAAAAGCAATCGCTAGTATTCCAACAGAAAGATAC
TTTTTCAATGTGTCTGATGAAGCAGCTCTACTAGAAAAGGCTGGGACATTAGGAGAACAA
ATTTTCAGCATTGAAGGTACTGTTCAAGGAGGAGACAACTTTCAGATGGAAATGTCACAA
GTGGGATTCAGTGCAGATTACTCTTCTCAAAATGATATTCTGATGCTGGGTGCAGTGGGA
GCTTTTGGCTGGAGTGGGACCATTGTCCAGAAGACATCTCATGGCCATTTGATCTTTCCT
AAACAAGCCTTTGACCAAATTCTGCAGGACAGAAATCACAGTTCATATTTAGGTTACTCT
GTGGCTGCAATTTCTACTGGAGAAAGCACTCACTTTGTTGCTGGTGCTCCTCGGGCAAAT
TATACCGGCCAGATAGTGCTATATAGTGTGAATGAGAATGGCAATATCACGGTTATTCAG
GCTCACCGAGGTGACCAGATTGGCTCCTATTTTGGTAGTGTGCTGTGTTCAGTTGATGTG

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GATAAAGACACCATTACAGACGTGCTCTTGGTAGGTGCACCAATGTACATGAGTGACCTA
AAGAAAGAGGAAGGAAGAGTCTACCTGTTTACTATCAAAGAGGGCATTTTGGGTCAGCAC
CAATTTCTTGAAGGCCCCGAGGGCATTGAAAACACTCGATTTGGTTCAGCAATTGCAGCT
CTTTCAGACATCAACATGGATGGCTTTAATGATGTGATTGTTGGTTCACCACTAGAAAAT
CAGAATTCTGGAGCTGTATACATTTACAATGGTCATCAGGGCACTATCCGCACAAAGTAT
TCCCAGAAAATCTTGGGATCCGATGGAGCCTTTAGGAGCCATCTCCAGTACTTTGGGAGG
TCCTTGGATGGCTATGGAGATTTAAATGGGGATTCCATCACCGATGTGTCTATTGGTGCC
TTTGGACAAGTGGTTCAACTCTGGTCACAAAGTATTGCTGATGTAGCTATAGAAGCTTCA
TTCACACCAGAAAAAATCACTTTGGTCAACAAGAATGCTCAGATAATTCTCAAACTCTGC
TTCAGTGCAAAGTTCAGACCTACTAAGCAAAACAATCAAGTGGCCATTGTATATAACATC
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ATCATTTATATACAGGAGCCCTCTGATGTTGTCAACTCTTTGGATTTGCGTGTGGACATC
AGTCTGGAAAACCCTGGCACTAGCCCTGCCCTTGAAGCCTATTCTGAGACTGCCAAGGTC
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CCTGCTTTAAAGAGAGAACAACAGGTGACTTTTACTATTAACTTTGACTTCAATCTTCAA
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AAGGCTGATAATTTGGTCAACCTCAAAATTCCTCTCCTGTATGATGCTGAAATTCACTTA
ACAAGATCTACCAACATAAATTTTTATGAAATCTCTTCGGATGGGAATGTTCCTTCAATC
GTGCACAGTTTTGAAGATGTTGGTCCAAAATTCATCTTCTCCCTGAAGGTAACAACAGGA
AGTGTTCCAGTAAGCATGGCAACTGTAATCATCCACATCCCTCAGTATACCAAAGAAAAG
AACCCACTGATGTACCTAACTGGGGTGCAAACAGACAAGGCTGGTGACATCAGTTGTAAT
GCAGATATCAATCCACTGAAAATAGGACAAACATCTTCTTCTGTATCTTTCAAAAGTGAA
AATTTCAGGCACACCAAAGAATTGAACTGCAGAACTGCTTCCTGTAGTAATGTTACCTGC
TGGTTGAAAGACGTTCACATGAAAGGAGAATACTTTGTTAATGTGACTACCAGAATTTGG
AACGGGACTTTTGCATCATCAACGTTCCAGACAGTACAGCTAACGGCAGCTGCAGAAATC
AACACCTATAACCCTGAGATATATGTGATTGAAGATAACACTGTTACGATTCCCCTGATG
ATAATGAAACCTGATGAGAAAGCCGAAGTACCAACAGGAGTTATAATAGGAAGTATAATT
GCTGGAATCCTTTTGCTGTTAGCTCTGGTTGCAATTTTATGGAAGCTCGGCTTCTTCAAA
AGAAAATATGAAAAGATGACCAAAAATCCAGATGAGATTGATGAGACCACAGAGCTCAGT
AGCTGA

Clone variation with respect to NM_002203.3
759 c=>t;825 g=>a;3252 c=>t

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_002203 unedited
GAGGCGTCCCTGTTGCCGCTTAGGGCGGTAGGCAAGTACGGTGGNGAGTCTATATAAGCA
TAGCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAA
TTCGGCACGAGCTAGAGTGTGCAGGTTCTCGTATCCCTCGGCCAAGGGTATCCTCTGCAA
ACCTCTGCAAACCCAGCGCAACTACGGTCCCCCTGNTAGACCCAGGATGGGGCCAGAACG
GACAGGGGCCGCGCCGCTGCCGCTGCTGCTGGTGTTAGCGCTCAGTCAAGGCATTTTAAA
TTGTTGTTTGGCCTACAATGTTGGTCTCCCAGAAGCAAAAATATTTTCCGGTCCTTCAAG
TGAACAGTTTGGCTATGCAGTGCAGCAGTTTATAAATCCAAAAGGCAACTGGTTACTGGT
TGGTTCACCCTGGAGTGGCTTTCCTGAGAACCGAATGGGAGATGTGTATAAATGTCCTGT
TGACCTATCCACTGCCACATGTGAAAAACTAATTTGCAAACTTCAACAAGCATTCCAAAT
GTTACTGAGATGAAAACCAACATGAGCCCTCGCTTGATCCTCACCAGGAACATGGGAACT
GGAAGGTTTCTCACTTGTGGGTCCTCTGTGGGCACAGCAATGTGGAAATCAGTTAACCCA
ACGGGGGGGTGTTCTGACTCAGTCCCGAATTTAACTTTTAAGCCGGTTTTTACCTGGACT
TAGCCCGGGCCCTTCCTAATAAATGTTGGGGTGGGGGGGGAGAAATAAAAAAGTTTTTTC
CTGGGTAGCAAGAAAAAATTTTTGGAAAAATTTGTCCAGGCCCGGAATTGGCCCCCCAGA
AACCACGGGGGGTTAATTTCAGTTTCCCAAAATCCCAGATTGGGTTTACTTTGACCCTTT
TAAACCCAAAAAAATGTTTTGACCCTCCCCAAACTCCAATTGG
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Restriction Sites: NotI-NotI

ACCN: NM_002203

Insert Size: 5000 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

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.

RefSeq: NM_002203.2, NP_002194.1

RefSeq Size: 5361 bp

RefSeq ORF:	3546 bp
Locus ID:	3673
UniProt ID:	P17301
Cytogenetics:	5q11.2
Domains:	FG-GAP, VWA
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer
Gene Summary:	This gene encodes the alpha subunit of a transmembrane receptor for collagens and related proteins. The encoded protein forms a heterodimer with a beta subunit and mediates the adhesion of platelets and other cell types to the extracellular matrix. Loss of the encoded protein is associated with bleeding disorder platelet-type 9. Antibodies against this protein are found in several immune disorders, including neonatal alloimmune thrombocytopenia. This gene is located adjacent to a related alpha subunit gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2012] Transcript Variant: This variant (1) encodes the functional protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.