

Product datasheet for **RG218837**

CD51 (ITGAV) (NM_002210) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD51 (ITGAV) (NM_002210) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CD51
Synonyms:	CD51; MSK8; VNRA; VTNR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218837 representing NM_002210 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTTTCGGCCGGCGACGGCTGCGCCTCGGTCCCCGGCCCTCCCGCTTCTCTCTCGGGACTCC
TGCTACCTCTGTGCCGCGCCTTCAACCTAGACGTGGACAGTCTGCCGAGTACTTGCCCGGAGGGAAG
TACTTCCGGCTTCGCCGTGGATTCTTCGTGCCAGCGCTTCCCGGATGTTTCTCTCGTGGGAGCT
CCCAAAGCAAACACCACCAGCCTGGGATTGTGGAAGGAGGGCAGGTCTCAAATGTGACTGGTCTTCTA
CCCGCCGGTGCCAGCCAATTGAATTTGATGCAACAGGCAATAGAGATTATGCCAAGGATGATCCATTGGA
ATTTAAGTCCCATCAGTGGTTTGGAGCATCTGTGAGGTGAAACAGGATAAAATTTGGCCGTGTCGCCCA
TTGTACCATTGGAGAAGTGAATGAAACAGGAGCGAGAGCCTGTTGGAACATGCTTTCTTCAAGATGGAA
CAAAGACTGTTGAGTATGCTCCATGTAGATCACAAGATATTGATGCTGATGGACAGGGATTTTGTCAAGG
AGGATTCAGCATTGATTTACTAAAGCTGACAGAGTACTTCTGGTGGTCTGGTAGCTTTTATTGGCAA
GGTCAGCTTATTCGGATCAAGTGGCAGAAATCGTATCTAAATACGACCCCAATGTTTACAGCATCAAGT
ATAATAACCAATTAGCAACTCGGACTGCACAAGCTATTTTGTGACAGCTATTTGGGTTATTCTGTGGC
TGTCGGAGATTTCAATGGTGTGATGGCATAGATGACTTTGTTTTCAGGAGTCCAAGAGCAGCAAGGACTTTG
GGAATGGTTTATATTTATGATGGGAAGAACATGTCCTCCTTATAACAATTTACTGGCAGCAGATGGCTG
CATATTTCCGATTTTCTGTAGTGCACACTGACATTAATGGAGATGATTATGCAGATGTGTTTATTGGAGC
ACCTCTCTTCATGGATCGTGGCTCTGATGGCAAACCTCAAGAGGTGGGGCAGGTCTCAGTGTCTCTACAG
AGAGCTTCAGGAGACTTCAGACGACAAAGCTGAATGGATTTGAGGTCTTTCACCGGTTTGGCAGTGCCA
TAGCTCCTTTGGGAGATCTGGACCAGGATGGTTTCAATGATATTGCAATTGCTGCTCCATATGGGGTGA
AGATAAAAAGGAATTGTTTATATCTTCAATGGAAGATCAACAGGCTTGAACGCAGTCCCATCTCAAATC
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TAGACAAAATGGATATCCAGACTTAATTTGAGGAGCTTTGGTGTAGATCGAGCTATCTTATACAGGGC
CAGACCAGTTACTGTAATGCTGGTCTTGAAGTGTACCCTAGCATTTTAAATCAAGACAATAAAACC



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TGCTCACTGCCTGGAACAGCTCTCAAAGTTTCCTGTTTTAATGTTAGGTTCTGCTTAAAGGCAGATGGCA
 AAGGAGTACTTCCCAGGAACTTAATTTCCAGGTGGAACCTCTTTTGGATAAACTCAAGCAAAGGGAGC
 AATTCGACGAGCACTGTTTCTCTACAGCAGGTCCCAAGTCACTCCAAGAACATGACTATTTCAAGGGG
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 CTCTGACATTGATTGTTAAGGCTCAGAATCAAGGAGAAGGTGCCTACGAAGCTGAGCTCATCGTTCCAT
 TCCACTGCAGGCTGATTTTCATCGGGTTGTCCGAAACAATGAAGCCTTAGCAAGACTTTCCTGTGCATTT
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 GCAGTTGAGATAAGAGGAGTCTCGAGTCTGATCATATCTTTCTCCGATTCCAAACTGGGAGCACAAGG
 AGAACCTGAGACTGAAGAAGATGTTGGCCAGTTGTTCCAGCACATCTATGAGCTGAGAAACAATGGTCC
 AAGTTCATTGAGCAAGGCAATGCTCCATCTTCAGTGGCCTTACAAATATAATAAACACTCTGTTGTAT
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 AGATCTCATCTTTGCAAAACAACGAAAAGAATGACACGGTTGCCGGGCAAGGTGAGCGGGACCATCTCAT
 CACTAAGCGGGATCTTGCCCTCAGTGAAGGAGATATTCACACTTTGGGTTGTGGAGTTGCTCAGTCTTG
 AAGATTGTCTGCCAAGTTGGGAGATTAGACAGAGGAAAGAGTGCAATCTTGTACGTAAAGTCATTACTGT
 GGACTGAGACTTTTATGAATAAAGAAAATCAGAATCATTCTCTCTGAAGTCGTCTGCTTCATTTAA
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 GTCACCTGGGGCATTGAGCCAGCGCCATGCCTGTGCCTGTGTGGGTGATCATTTTAGCAGTTCTAGCAG
 GATTGTTGCTACTGGCTGTTTTGGTATTGTAATGTACAGGATGGGCTTTTTTAAACGGTCCGGCCACC
 TCAAGAAGAACAAGAAAGGGAGCAGCTTCAACCTCATGAAAATGGTGAAGGAACTCAGAAACT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG218837 representing NM_002210
 Red=Cloning site Green=Tags(s)

MAFPRRRLRLGPRGLPLLLSGLLLPLCRANLVDSPAEYSGPEGSYFGFAVDFVPSASSRMFLLVGA
 PKANTTQPGIVEGGQVLKCDWSSTRRCQPIEFDATGNRDYAKDDPLEFKSHQWFGASVRSKQDKILACAP
 LYHWRTEMKQEREPVGTGFLQDGTKTVEYAPCRSQDIDADGGFCQGGFSIDFTKADRVLGGPGSFYWQ
 GQLISDQVAEIVSKYDPNVYSIKYNNQLATRTAQAFDSDSYLGYSAVAVGDFNGDGIDDFVSGVPRAARTL
 GMVYIYDGKNMSSLYNFTGEQMAAYFGFSVAATDINGDDYADVFIGAPLFMDRGSQGLQEVGQVSVSLQ
 RASGDFQTTKLNQFEVFAFGSAIAPLGDLDQDGFNDIAIAAPYGGEDKKGIVYIFNGRSTGLNAVPSQI
 LEGQWAARSMPPSFGYSMKGATDIDKNGYPDLIVGAFGVDRAILYRARPVITVNAGLEVYPSILNQDNKT
 CSLPGTALKVSCFNVRFLKADGKGVLPKLNQVVELLLDKLKQKGAIRRALFLYSRSPSHSKNMTISRG
 GLMQCEELIAYLRDESEFRDKLTPITIFMEYRLDYRTAADTTGLQPILNQFTPANISRQAHILLDCGEDN
 VCKPKLEVSVDSDQKKIYIGDDNPLTLIVKAQNGGEGAYEAEIVSIPLQADFIGVVRNNEALARLSCAF
 KTENQTRQVVCDLGNPMKAGTQLLAGLRFVSHQQSEMDSVKFDLQIQSSNLFDKVSPVVSQKVDLAVLA
 AVEIRGVSSPDHIFLPIPNWEHKENPETEEDVGPVVQHIYELRNNGPSSFKAHLHLQWPYKYNNTLLY
 ILHYDIDGPMNCTSDMEINPLRIKISSLQTEKNDTVAGQGERDHLITKRDLALSEGDIHTLGGCVAQCL
 KIVCQVGRDRGKSAILYVKSLLWTETFMNKENQNHYSYLSKSSASFNVIEFPYKNLPIDITNSTLVTNN
 VTWGIQAPMPVPVWVILAVLAGLLLLAVLVMYRMGFFKRVRRPQEEQEREQLQPHENGEENSET

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_002210

ORF Size: 3144 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.

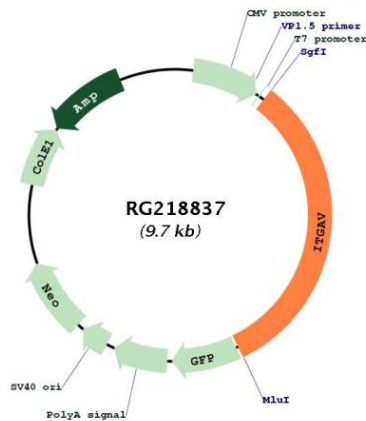
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002210.4](#)

RefSeq Size: 7047 bp
RefSeq ORF: 3147 bp
Locus ID: 3685
UniProt ID: [P06756](#)
Cytogenetics: 2q32.1
Domains: FG-GAP
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways: Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cell adhesion molecules (CAMs), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer

Gene Summary: The product of this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha subunit and a beta subunit that function in cell surface adhesion and signaling. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha V subunit. This subunit associates with beta 1, beta 3, beta 5, beta 6 and beta 8 subunits. The heterodimer consisting of alpha V and beta 3 subunits is also known as the vitronectin receptor. This integrin may regulate angiogenesis and cancer progression. Alternative splicing results in multiple transcript variants. Note that the integrin alpha 5 and integrin alpha V subunits are encoded by distinct genes. [provided by RefSeq, Oct 2015]

Product images:



Circular map for RG218837