

Product datasheet for **RG221093**

Integrin beta 4 (ITGB4) (NM_001005619) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin beta 4 (ITGB4) (NM_001005619) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ITGB4
Synonyms:	CD104; GP150
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221093 representing NM_001005619 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGGGCCACGCCCCAGCCCATGGGCCAGGCTGCTCCTGGCAGCCTTGATCAGCGTCAGCCTCTCTG
GGACCTTGGCAAACCGCTGCAAGAAGGCCCCAGTGAAGAGCTGCACGGAGTGTGTCCGTGTGGATAAGGA
CTGCGCCTACTGCACAGACGAGATGTTCCAGGGACCGCGCTGCAACACCCAGGCGGAGCTGCTGGCCGCG
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AACTGCTCCACCGGCTCTCTGAGTGACATTCAGCCCTGCCTGCGGGAGGGCGAGGACAAGCCGTGCTCCG
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 CCCTCACCCGGCATGTGACCCAGGAGTTTGAGCCGGACTGACCACCAGCGGAACCCCTAGCACCCA
 CATGGACCAACAGTTCTTCCAACT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG221093 representing NM_001005619
 Red=Cloning site Green=Tags(s)

MAGPRPSPWARLLLLAALISVSLSGTLANRCKKAPVKSCTECVRVKDKCAYCTDEMFRDRRCNTQAEALLA
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 MSRNDERCHLDTTGTYTQYRTQDYPSVPTLVRLAKHNIIPFAVTNYSYSYEEKLHTYFPVSSLVGLQE
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 RSRAQMKGFPPSRGPRDSIILAGRPAAPSWGPDSSLTAGVPDTPTRLVFSALGPTSLRVSWQEPRCERPL
 QGYSVEYQLLNGGELHRLNIPNAQTSVVVEDLLPNHSYVFRVRAQSQEGWGREREGVITIESQVHPQSP
 LCPLPGSAFTLSTPSAPGPLVFTALSPDSLQLSWERPRRPNVDIVGYLVTCEMAQGGPATAFRVDGDS
 ESRLTVPGLSENVYKFKVQARTTEGFGPEREGITITIESQDGGPFPQLGSRAGLFQHPLQSEYSSITTTT
 TSATEPFLVDGLTLGAQHLEAGGSLTRHVTQEFVSRTLTTSGLTSTHMDQQFFQT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

ORF Size:	5415 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:	<ol style="list-style-type: none">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_001005619.1 , NP_001005619.1
RefSeq Size:	5695 bp
RefSeq ORF:	5418 bp
Locus ID:	3691
UniProt ID:	P16144
Cytogenetics:	17q25.1
Protein Families:	Druggable Genome
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Regulation of actin cytoskeleton
Gene Summary:	Integrins are heterodimers comprised of alpha and beta subunits, that are noncovalently associated transmembrane glycoprotein receptors. Different combinations of alpha and beta polypeptides form complexes that vary in their ligand-binding specificities. Integrins mediate cell-matrix or cell-cell adhesion, and transduced signals that regulate gene expression and cell growth. This gene encodes the integrin beta 4 subunit, a receptor for the laminins. This subunit tends to associate with alpha 6 subunit and is likely to play a pivotal role in the biology of invasive carcinoma. Mutations in this gene are associated with epidermolysis bullosa with pyloric atresia. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]