

# Anti-alpha 5 beta 1 Integrin (Volociximab), Human IgG4 Antibody

Catalog # ABV11786

## Product Information

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<b>Application</b>	IHC, IF, FC, E
<b>Primary Accession</b>	<a href="#">P08648</a>
<b>Reactivity</b>	Human
<b>Host</b>	Recombinant
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Human IgG4, kappa
<b>Calculated MW</b>	114536

## Additional Information

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<b>Gene ID</b>	3678
<b>Alias Symbol</b>	ITGA5
<b>Other Names</b>	Fibronectin receptor; CD49 antigen-like family member E; Integrin alpha-F; VLA-5; CD49e
<b>Appearance</b>	Colorless liquid
<b>Formulation</b>	200 µg affinity purified human antibody in phosphate-buffered saline (PBS) containing 0.02% Proclin 300
<b>Reconstitution &amp; Storage</b>	-20 °C
<b>Background Descriptions</b>	
<b>Precautions</b>	Anti-alpha 5 beta 1 Integrin (Volociximab), Human IgG4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ITGA5 ( <a href="#">HGNC:6141</a> )
<b>Synonyms</b>	FNRA
<b>Function</b>	Integrin alpha-5/beta-1 (ITGA5:ITGB1) is a receptor for fibronectin and fibrinogen. It recognizes the sequence R-G-D in its ligands. ITGA5:ITGB1 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed: <a href="#">18635536</a> , PubMed: <a href="#">25398877</a> ). ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed: <a href="#">12807887</a> , PubMed: <a href="#">17158881</a> ). ITGA5:ITGB1 acts as a receptor for fibronectin (FN1) and mediates R-G-D-dependent cell

adhesion to FN1 (PubMed:[33962943](#)). ITGA5:ITGB1 is a receptor for IL1B and binding is essential for IL1B signaling (PubMed:[29030430](#)). ITGA5:ITGB3 is a receptor for soluble CD40LG and is required for CD40/CD40LG signaling (PubMed:[31331973](#)).

<b>Cellular Location</b>	Cell membrane; Single-pass type I membrane protein. Cell junction, focal adhesion
<b>Tissue Location</b>	Expressed in placenta (at protein level).

## Background

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The antibody binds specifically to  $\alpha 5\beta 1$  integrin, which is part of the superfamily of glycoprotein transmembrane receptors for ligands such as fibronectin, vitronectin, laminins and collagens. The  $\alpha 5\beta 1$  integrin receptor plays a key role in cellular processes such as inflammation, cell proliferation, angiogenesis and tumour metastasis. Comprising the variable domain of the original mouse antibody, a chimeric mouse:human IgG4 version of this antibody has been tested in vivo: In cynomolgus monkeys with laser-induced choroidal neovascularization (CNV), in rabbit models and in human volunteers. The antibody reached Phase II clinical trials with PDL Biopharma and Biogen-Idec.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.