10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Catalog # ABV11786

Product Information

Application	IHC, IF, FC, E
Primary Accession	P08648
Reactivity	Human
Host	Recombinant
Clonality	Monoclonal
Isotype	Human IgG4, kappa
Calculated MW	114536

Additional Information

Gene ID	3678
Alias Symbol	ITGA5
Other Names	Fibronectin receptor; CD49 antigen-like family member E; Integrin alpha-F; VLA-5; CD49e
Appearance	Colorless liquid
Formulation	200 □g affinity purified human antibody in phosphate-buffered saline (PBS) containing 0.02% Proclin 300
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	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

Name	ITGA5 (HGNC:6141)
Synonyms	FNRA
Function	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:18635536, PubMed:25398877). ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed:12807887, PubMed:17158881). 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). ITGA5:ITGB1 acts as a receptor for SNED1 and mediates R-G-D-dependent cell adhesion to SNED1 (PubMed:39713860).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell junction, focal adhesion
Tissue Location	Expressed in placenta (at protein level).

Background

The antibody binds specifically to a5ß1 integrin, which is part of the superfamily of glycoprotein transmembrane receptors for ligands such as fibronectin, vitronectin, laminins and collagens. The a5ß1 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'.