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

Catalog # ABV11786

Specification

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

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

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

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

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell junction, focal adhesion

Tissue Location
Expressed in placenta (at protein level).

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

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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

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