SUITE 203, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-416-1478 Fax: 1-631-207-8356
Email: info@creative-biolabs.com
www.creative-biolabs.com

Product Information

MemDX™ Antibody Discovery - Human Integrin alpha 4 beta 1 (34-977(ITGA4)&21-728(ITGB1)) Membrane Protein, Partial, -His -Avi tag & Tag free, [Biotin]

Cat. No.: **MP0270F**
This product is for research use only and is not intended for diagnostic use.

This membrane protein is Human Integrin alpha 4 beta 1 (34-977(ITGA4)&21-728(ITGB1)). It has been tested in SDS-PAGE, ELISA. We provide this protein to facilitate your membrane protein antibody discovery and development.

Product Specifications

Host Species
Human

Target Protein
Integrin alpha 4 beta 1

Protein Length
ECD

Molecular Weight
Calculated MW of 113.2 kDa (ITGA4) and 83.7 kDa (ITGB1). The ITGA4 subunit is composed of a heavy chain (Tyr 34 - Arg 591, calculated MW 61.1 kDa) and a light chain (Ser 592 - Thr 977, calculated MW 52.1 kDa). Consequently ITGA4 migrates as 65-75 kDa, 80-85 kDa and 135-150 kDa, and ITGB1 as 100-133 kDa respectively under reducing (R) condition due to cleavage and glycosylation.

Sequence
AA Tyr 34 - Thr 977 (ITGA4) & Gln 21 - Asp 728 (ITGB1) (Accession # P13612-1 (ITGA4) & P05556-1 (ITGB1)).

Product Description

Activity
Yes

Application
SDS-PAGE, ELISA

Expression Systems
HEK293

Tag
Subunit ITGA4 is fused with an acidic tail at the C-terminus and followed by a His tag and an Avi tag and subunit ITGB1 contains no tag but a basic tail at the C-terminus.

Protein Format

Soluble

Form

LYOPH

Reconstitution

Please see Certificate of Analysis for specific instructions.

Endotoxin

<1.0 EU/μg by the LAL method

Conjugation

Biotin

Purity

>95% as determined by SDS-PAGE.

Buffer

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

Storage

Stored at lyophilized form at -20°C or lower. Avoid repeated freeze-thaw cycles.
The antigen can be stable for 12 months in lyophilized form after storage at -20°C to -80°C, 3 months under sterile coditions after reconstitution after storage at -80°C.

Target

Target Protein

Integrin alpha 4 beta 1

Full Name

integrin subunit alpha 4&integrin subunit beta 1

Introduction

The gene encodes a member of the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain that function in cell surface adhesion and signaling. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha 4 subunit. This subunit associates with a beta 1 or beta 7 subunit to form an integrin that may play a role in cell motility and migration. This integrin is a therapeutic target for the treatment of multiple sclerosis, Crohn's disease and inflammatory bowel disease. Alternative splicing results in multiple transcript variants. &Integrins are heterodimeric proteins made up of alpha and beta subunits. At least 18 alpha and 8 beta subunits have been described in mammals. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. This gene encodes a beta subunit. Multiple alternatively spliced transcript variants which encode different protein isoforms have been found for this gene.

Alternative Names

IA4; CD49D; integrin alpha-4; 269C wild type; CD49 antigen-like family member D; VLA-4 subunit alpha; alpha 4 subunit of VLA-4 receptor; antigen CD49D, alpha-4 subunit of VLA-4 receptor; integrin alpha-IV; very late activation protein 4 receptor, alpha 4 subunit & CD29; FNRB; MDF2; VLAB; GPIIA; MSK12; VLA-BETA; integrin beta-1; glycoprotein IIa; integrin VLA-4 beta subunit; integrin beta 1; integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12); very late activation protein, beta polypeptide

Gene ID

3676; 3688

UniProt ID

P13612; P05556