

Anti-CD49b [31H4]

Catalogue number: 152485

Sub-type: Primary antibody

Images:

Contributor

Inventor: Martin Humphries

Institute: University of Manchester

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Anti-CD49b [31H4]

Alternate name: Integrin Subunit Alpha 2; Alpha 2 Subunit Of VLA-2 Receptor; Platelet Membrane Glycoprotein Ia; CD49 Antigen-Like Family Member B; Collagen Receptor; CD49B; GPIa; Very Late Activation Protein 2 Receptor; Alpha-2 Subunit; Human Platelet Alloantigen System; Platelet Glycoprotein GPIa; VLA-2 Subunit Alpha; CD49b Antigen; HPA-5; VLA-2; VLAA2; BR

Class: Monoclonal

Conjugate: Unconjugated

Description: CD49b also known as integrin alpha-2, VLA-2 subunit alpha or collagen receptor. CD49b is a 1181 amino acid ~130 kDa single pass type-1 transmembrane glycoprotein which forms a heterodimer with integrin beta-1 and mediates the adhesion of platelets and other cell types to the extracellular matrix. Loss of the encoded protein is associated with bleeding disorder platelet-type 9. Antibodies against this protein are found in several immune disorders, including neonatal alloimmune thrombocytopenia.

Purpose:

Parental cell:

Organism:

Tissue:

Model:

Gender:

Isotype: IgG1

Reactivity: Human

Selectivity:

Host: Mouse

Immunogen: Purified human b1 integrin preparation from HT1080 fibrosarcoma cell extract.

Immunogen UNIPROT ID:

Sequence:

Growth properties:
Production details:
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers:
Additional notes:

Target details

Target: Integrin alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)

Target alternate names:

Target background: CD49b also known as integrin alpha-2, VLA-2 subunit alpha or collagen receptor. CD49b is a 1181 amino acid 130 kDa single pass type-1 transmembrane glycoprotein which forms a heterodimer with integrin beta-1 and mediates the adhesion of platelets and other cell types to the extracellular matrix. Loss of the encoded protein is associated with bleeding disorder platelet-type 9. Antibodies against this protein are found in several immune disorders, including neonatal alloimmune thrombocytopenia.

Molecular weight:

Ic50:

Applications

Application: ELISA ; FACS ; IP

Application notes:

Handling

Format: Liquid

Concentration: 1 mg/ml

Passage number:

Growth medium:

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer: PBS with 0.02% azide

Storage conditions: -15° C to -25° C

Shipping conditions: Shipping at 4° C

Related tools

Related tools:

References

References: Devbhandari et al. 2011. PLoS One. 6(9):e24901. PMID: 21961047. ; Profiling of the tetraspanin CD151 web and conspiracy of CD151/integrin $\alpha 3 \beta 1$ complex in the progression of hepatocellular carcinoma. ; Ke et al. 2011. Gastroenterology. 140(5):1629-41.e15. PMID: 21320503. ; CD151 amplifies signaling by integrin $\alpha 6 \beta 1$ to PI3K and induces the epithelial-mesenchymal transition in HCC cells. ; Franco et al. 2010. J Biol Chem. 285(50):38756-64. PMID: 20937830. ; Huang et al. 2010. Cancer. 116(23):5440-51. PMID: 20715158. ; The tetraspanin CD151 is required for Met-dependent signaling and tumor cell growth. ; Overexpression of CD151 as an adverse marker for intrahepatic cholangiocarcinoma patients. ; Shi et al. 2010. Hepatology. 52(1):183-96. PMID: 20578262. ; CD151 modulates expression of matrix metalloproteinase 9 and promotes neoangiogenesis and progression of hepatocellular carcinoma. ; Ke et al. 2009. Hepatology. 49(2):491-503. PMID: 19065669. ; Role of overexpression of CD151 and/or c-Met in predicting prognosis of hepatocellular carcinoma. ; Spoden et al. 2008. PLoS One. 3(10):e3313. PMID: 18836553. ; Clathrin- and caveolin-independent entry of human papillomavirus type 16--involvement of tetraspanin-enriched microdomains (TEMs). ; Hasegawa et al. 2007. Lab Invest. 87(9):882-92. PMID: 17632541. ; CD151 dynamics in carcinoma-stroma interaction: integrin expression, adhesion strength and proteolytic activity. ; Zheng et al. 2007. Acta Pharmacol Sin. 28(1):66-72. PMID: 17184584. ; CD151 gene delivery increases eNOS activity and induces ECV304 migration, proliferation and tube formation. ; Zheng et al. 2006. Mol Med. 12(9-10):214-20. PMID: 17225869. ; CD151 gene delivery activates PI3K/Akt pathway and promotes neovascularization after myocardial infarction in rats. ; Nishiuchi et al. 2005. Proc Natl Acad Sci U S A. 102(6):1939-44. PMID: 15677332. ; Potentiation of the ligand-binding activity of integrin $\alpha 3 \beta 1$ via association with tetraspanin CD151. ; Karamatic Crew et al. 2004. Blood. 104(8):2217-23. PMID: 15265795. ; CD151, the first member of the tetraspanin (TM4) superfamily detected on erythrocytes, is essential for the correct assembly of human basement membranes in kidney and skin. ; Yauch et al. 1998. Mol Biol Cell. 9(10):2751-65. PMID: 9763442. ; Highly stoichiometric, stable, and specific association of integrin $\alpha 3 \beta 1$ with CD151 provides a major link to phosphatidylinositol 4-kinase, and may regulate cell migration.