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KD-Validated Anti-Integrin alpha V Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1819

Specification

KD-Validated Anti-Integrin alpha V Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P06756
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 116 kDa, observed, 130 kDa KDa**
Gene Name	**ITGAV**
Aliases	**ITGAV; Integrin Subunit Alpha V; CD51; MSK8; VNRA; VTNR; Integrin, Alpha V (Vitronectin Receptor, Alpha Polypeptide, Antigen CD51); Antigen Identified By Monoclonal Antibody L230; Vitronectin Receptor Subunit Alpha; Vitronectin Receptor; Integrin Alpha-V; Integrin AlphaVbeta3; Integrin, Alpha V; CD51 Antigen**
Immunogen	**Recombinant protein of human Integrin alpha V**

KD-Validated Anti-Integrin alpha V Rabbit Monoclonal Antibody - Additional Information

Gene ID	**3685**

Other Names
Integrin alpha-V, Vitronectin receptor {ECO:0000312|HGNC:HGNC:6150}, Vitronectin receptor subunit alpha, CD51, Integrin alpha-V heavy chain, Integrin alpha-V light chain, ITGAV (HGNC:6150)

KD-Validated Anti-Integrin alpha V Rabbit Monoclonal Antibody - Protein Information

Name ITGAV (HGNC:6150)

Function
The alpha-V (ITGAV) integrins are receptors for vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase- 2, osteopontin, osteomodulin, prothrombin, thrombospondin and vWF. They recognize the sequence R-G-D in a wide array of ligands. ITGAV:ITGB3 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1- dependent fractalkine signaling (PubMed:23125415). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGAV:ITGB3 binds to FGF1 and this binding is essential for

FGF1 signaling (PubMed:18441324). ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling (PubMed:28302677). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:19578119). ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:28873464). ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling (PubMed:29030430). ITGAV:ITGB3 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). ITGAV:ITGB3 and ITGAV:ITGB6 act as receptors for fibrillin-1 (FBN1) and mediate R-G-D-dependent cell adhesion to FBN1 (PubMed:12807887, PubMed:17158881). Integrin alpha-V/beta-6 or alpha- V/beta-8 (ITGAV:ITGB6 or ITGAV:ITGB8) mediates R-G-D-dependent release of transforming growth factor beta-1 (TGF-beta-1) from regulatory Latency-associated peptide (LAP), thereby playing a key role in TGF-beta-1 activation (PubMed:15184403, PubMed:22278742, PubMed:28117447). ITGAV:ITGB3 acts as a receptor for CD40LG (PubMed:31331973). ITGAV:ITGB3 acts as a receptor for IBSP and promotes cell adhesion and migration to IBSP (PubMed:10640428).

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

KD-Validated Anti-Integrin alpha V Rabbit Monoclonal 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

KD-Validated Anti-Integrin alpha V Rabbit Monoclonal Antibody - Images

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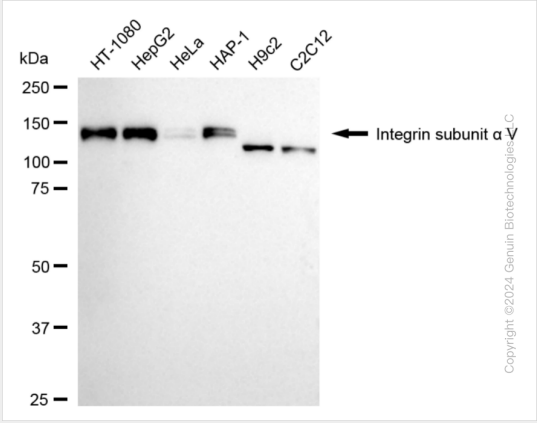
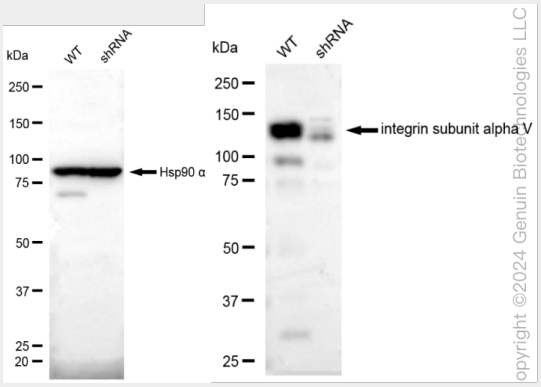
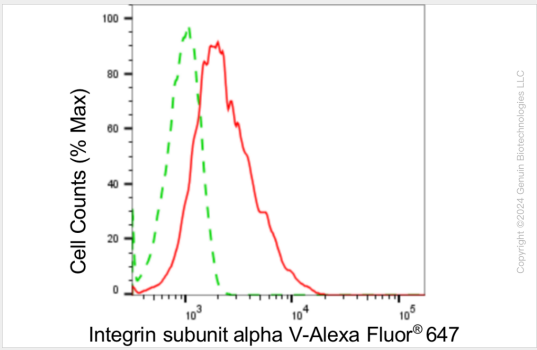


Western blotting analysis using anti-integrin subunit alpha V antibody (Cat#AGI1819). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-integrin subunit alpha V antibody (Cat#AGI1819, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-integrin subunit alpha V antibody (Cat#AGI1819). Integrin subunit alpha V expression in wild-type (WT) and integrin subunit alpha V (ITGAV) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-integrin subunit alpha V antibody (Cat#AGI1819, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of integrin subunit alpha V expression in HepG2 cells using anti-integrin subunit alpha V antibody (Cat#AGI1819, 1:2,000). Green, isotype control; red, integrin subunit alpha V.

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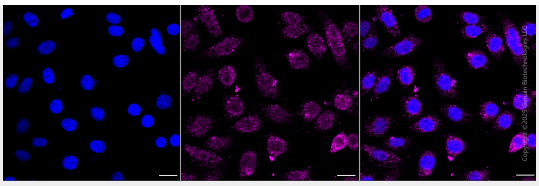

Immunocytochemical staining of HepG2 cells with anti-Integrin subunit alpha V antibody(Cat#AGI1819, 1:1,000). Nuclei were stained blue with DAPI; Integrin subunit alpha V was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar, 20 µm.