

Mouse anti-Alpha v Beta Integrin, clone BV3 (Monoclonal)

Clone no. BV3

MONOSAN

Product name	Mouse anti-Alpha v Beta Integrin, clone BV3 (Monoclonal)
Host	Mouse
Applications	FC,ELISA,IF,IP,IHC-P
Species reactivity	human, chicken, rat
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	BV3
Size	1 ml
Concentration	100 ug/ ml
Format	-
Storage buffer	PBS with 0.1% BSA and 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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Additional info

The monoclonal antibody BV3 recognizes human alpha-V/beta-3 integrin present on human cells. Integrins are a superfamily of $\alpha\beta$ heterodimeric cell-surface adhesion receptors found in many species. They are expressed on a variety of cells and mediate numerous physiological processes, including inflammation, migration, adhesion and proliferation. The β_3 family consist of 2 members: $\alpha\text{IIb}\beta_3$ and $\alpha\text{v}\beta_3$, which mediate cell-cell and cell-ECM interactions and are important for cellular migration, regulation of gene expression, cell survival, adhesion and differentiation. All processes which are involved in tissue development, angiogenesis and thrombosis. Each subunit consist of an extracellular domain, a single transmembrane segment and a cytoplasmic tail. They connect to the actin cytoskeleton via adaptor proteins that bind their cytoplasmic tails. Cell matrix adhesions also act as signaling units by their capacity to organize the actin cytoskeleton and to accumulate various signaling intermediates. Integrin $\alpha\text{v}\beta_3$ was originally identified as the vitronectin receptor. Nevertheless, other ligands include fibrinogen, fibronectin, laminin, thrombospondin, Von Willebrand factor, tenascin, osteopontin and several forms of collagen. The interactions of integrin $\alpha\text{v}\beta_3$ to those ligands is mediated by the RGD (Arg-Gly-Asp) sequence motif present in these proteins. Deregulation of β_3 integrins is involved in e.g. autoimmune diseases, cardiovascular disorders, transplant rejection and tumorigenesis. In contribution to the latter, integrin $\alpha\text{v}\beta_3$ contribute by supporting growth of small (tumor) blood vessels thereby potentiating the metastatic potential. Overexpression of integrin $\alpha\text{v}\beta_3$ has been demonstrated in various tumors and activated endothelium.

References

1. Newton; S et al. Eur J neurosc 2006; 24:819-828
2. Merkel, O et al Bioconj chem 2009, 20:1270-1280
3. Dare; E et al. Tissue engineering; 2009; 15:2285
4. -
5. -

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