

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Integrin $\alpha$ V/CD51 in Western blots. In Western blots, approximately 10% cross-reactivity with recombinant mouse (rm) Integrin $\alpha$ V is observed, 5% cross-reactivity with recombinant human (rh) Integrin $\alpha$ 2 is observed, and less than 1% cross-reactivity with rhIntegrin $\alpha$ 5 and rmIntegrin $\alpha$ E is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Integrin $\alpha$ V/CD51 Phe31-Val992 Accession # NP_002201
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

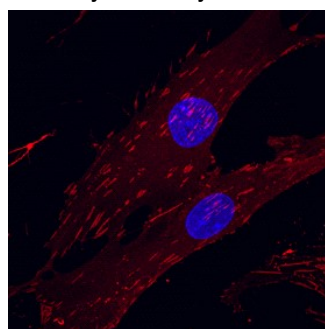
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Human Integrin $\alpha$ V/CD51
<b>Flow Cytometry</b>	2.5 $\mu$ g/10 <sup>6</sup> cells	Human peripheral blood mononuclear cells
<b>Immunocytochemistry</b>	5-15 $\mu$ g/mL	See Below

## DATA

### Immunocytochemistry



**Integrin  $\alpha$ V/CD51 in Human Mesenchymal Stem Cells.** Integrin  $\alpha$ V/CD51 was detected in immersion fixed human mesenchymal stem cells using Goat Anti-Human Integrin  $\alpha$ V/CD51 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF1219) at 10  $\mu$ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Streptavidin (red; Catalog # NL999) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and cell surface. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Integrin  $\alpha$ V, also known as CD51 and vitronectin receptor subunit  $\alpha$ , is a 140 - 150 kDa integrin alpha chain that forms dimers with at least five beta chains including  $\beta$ 1, 3, 5, 6, and 8. It is a 1018 amino acid (aa) residue type I membrane protein with a large (962 aa) extracellular domain (ECD) and a short (32 aa) cytoplasmic tail. The N-terminal region of  $\alpha$ V, which is important for ligand binding, contains seven FG-GAP (phenylalanyl-glycyl and glycyl-alanyl-prolyl) consensus repeats that fold into a  $\beta$ -propeller domain. Furin cleavage of the  $\alpha$ V ECD occurs after Gly 889, generating a disulfide-linked, heteromeric subunit  $\alpha$ V chain.  $\alpha$ V-containing integrins bind multiple ECM molecules, including vitronectin, osteopontin, MMP-2, and TSP. The ECD of human Integrin  $\alpha$ V shares 92% aa sequence identity with mouse Integrin  $\alpha$ V ECD.