

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Integrin $\alpha$ V/CD51 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 273210
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<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 Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

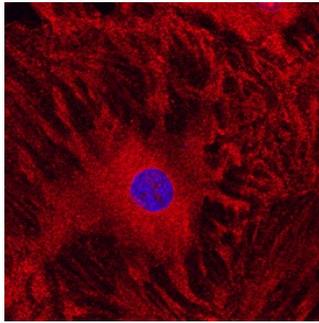
## APPLICATIONS

**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>Flow Cytometry</b>	2.5 $\mu$ g/10 <sup>6</sup> cells	Human peripheral blood mononuclear cells
<b>Immunocytochemistry</b>	8-25 $\mu$ g/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA

### Immunocytochemistry



**Integrin  $\alpha$ V/CD51 in Rat Mesenchymal Stem Cells.** Integrin  $\alpha$ V/CD51 was detected in immersion fixed rat mesenchymal stem cells using Mouse Anti-Human Integrin  $\alpha$ V/CD51 Monoclonal Antibody (Catalog # MAB12191) at 10  $\mu$ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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 (CD51; also vitronectin receptor subunit alpha) is a 140-150 kDa member of the integrin  $\alpha$ -chain family of adhesion molecules. It forms disulfide-linked integral membrane heterodimers with at least five  $\beta$ -chains, including  $\beta$ 1, 3, 5, 6 and 8. Human  $\alpha$ V is a 1018 aa type I transmembrane glycoprotein that contains a 962 aa extracellular domain (ECD) and a short 32 aa cytoplasmic tail. The ECD contains seven FG (PheAlaGly)-GAP (GlyAlaPro) repeats that form a  $\beta$ -propeller domain (aa 46-483). Furin cleavage of the  $\alpha$ V ECD occurs after Gly889, 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  $\alpha$ V shares 92% and 90% aa sequence identity with mouse and rat  $\alpha$ V ECD, respectively.