

IVMB0431

## Product Information

<b>Product SKU:</b>	IVMB0431	<b>Clone:</b>	Hu114	<b>Target:</b>	CD49D
<b>Size:</b>	50 µg	<b>Isotype:</b>	Human IgG4k		

## Additional Information

<b>Reactivity:</b>	Human	<b>Host Species:</b>	Human
<b>Antibody Type:</b>	Biosimilar Recombinant Human Monoclonal Antibody	<b>Expression Host:</b>	HEK-293 Cells

## Immunogen Information

**Background:** Natalizumab is characterized as a disease-modifying therapy for multiple sclerosis (a disease of the central nervous system (CNS)), and inflammatory bowel disease. It works by inhibiting the migration of leukocytes to inflammation sites. The VCAM-1 and  $\alpha 4\beta 1$ -integrin interaction is necessary for leukocyte adhesion, firm attachment, and transmigration across the blood-brain barrier into the CNS. Natalizumab, a recombinant, humanized antibody, binds to  $\alpha 4\beta 1$ -integrin and blocks its interaction with VCAM-1. Hence, leukocyte migration into brain tissue is inhibited, thereby reducing inflammation and preventing the formation of multiple sclerosis lesions.<sup>1</sup> Inflammation in the gut pertaining to inflammatory bowel disease can be controlled in a similar fashion. Blocking  $\alpha 4\beta 7$ -integrin with a humanized, monoclonal antibody, specific to the  $\alpha 4\beta 7$  heterodimer inhibits the migration of leukocytes into the inflamed intestinal tissue, thus, reducing inflammation in the gut.<sup>2</sup> This cost-effective, research-grade Anti-Human CD49D (Natalizumab) utilizes the same variable regions from the therapeutic antibody Natalizumab making it ideal for research projects.

**Product Concentration:** 0.2 mg/ml

**Applications:** FC

**Synonyms:** CD49D; alpha 4 subunit of VLA-4 receptor; ITGA4; Integrin alpha-IV

<b>Antigen Distribution:</b>	CD49D is a subunit of the integrin VLA-4, which is expressed on the cell surfaces of stem cells, progenitor cells, T and B cells, monocytes, natural killer cells, eosinophils, and neutrophils.
<b>Immunogen:</b>	RAMOS cell line injected into mice.
<b>Formulation:</b>	This Allophycocyanin (APC) conjugate is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.
<b>Specificity:</b>	This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Natalizumab. Natalizumab binds to the alpha 4 subunit of $\alpha 4\beta 1$ and $\alpha 4\beta 7$ integrins. This product is for research use only.
<b>Pathogen Testing:</b>	-
<b>Storage &amp; Handling:</b>	This Allophycocyanin (APC) conjugate is stable when stored at 2-8°C. Do not freeze.