

## 12-8042: Anti-Human CD49D (Integrin alpha 4) (Natalizumab)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	Hu114
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human
<b>Alternative Name :</b>	CD49D; alpha 4 subunit of VLA-4 receptor; ITGA4; Integrin alpha-IV
<b>Isotype :</b>	Human IgG1k
<b>Immunogen Information :</b>	RAMOS cell line injected into mice.

### Description

Expression Host : HEK-293

Pathogen Testing : To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of this recombinant biosimilar antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Natalizumab. Natalizumab binds to the alpha 4 subunit of alpha4beta1 and alpha4beta7 integrins. This product is for research use only.

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 alpha4beta1-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 alpha4beta1 - 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 alpha4beta7-integrin with a humanized, monoclonal antibody, specific to the alpha4beta7 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 Info

<b>Amount :</b>	50 µg / 100 µg
<b>Purification :</b>	>=95% monomer by analytical SEC Concentration : >= 5.0 mg/ml
<b>Content :</b>	This recombinant monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (PBS) pH 7.2 - 7.4, 150 mM NaCl with no carrier protein, potassium, calcium or preservatives added.
<b>Storage condition :</b>	Functional grade biosimilar antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at -80°C. Avoid Repeated Freeze Thaw Cycles.

### Application Note

Endotoxin : <= 1.0 EU/mg as determined by the LAL method

The suggested concentration for Natalizumab biosimilar antibody for staining cells in flow cytometry is <= 0.25 µg per 10<sup>6</sup> cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.