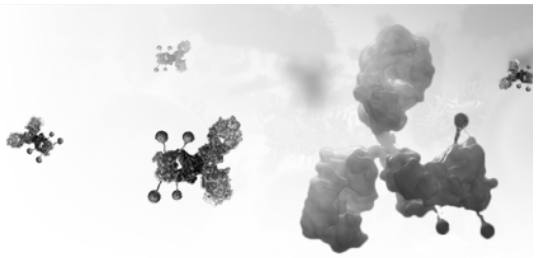

Human Anti-Human CD49D (Natalizumab) Monoclonal Antibody, clone Hu114 [Biosimilar] (CABT-Z634H)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Biosimilar Recombinant Human Monoclonal Antibody
Specificity	This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Natalizumab. Natalizumab binds to the alpha 4 subunit of α4β1 and α4β7 integrins.
Immunogen	RAMOS cell line injected into mice.
Isotype	IgG1, κ
Source/Host	Human
Species Reactivity	Human
Clone	Hu114
Purification	Protein A or G purified
Conjugate	Functional Grade
Applications	BL, FC Recommended concentration: FC: ≤ 0.25 µg per 10^6 cells in a volume of 100 µl.
Format	Liquid
Concentration	Lot specific
Size	200 µg

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Buffer	0.01 M phosphate buffered saline (PBS) pH 7.2 - 7.4, 150 mM NaCl with no carrier protein, potassium, calcium or preservatives added. Endotoxin Level ≤ 1.0 EU/mg as determined by the LAL method
Preservative	None
Storage	Functional grade biosimilar antibodies may be stored sterile as received at 2-8℃ for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at -80℃. Avoid Repeated Freeze Thaw Cycles.
Ship	Wet ice

BACKGROUND

Introduction	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. 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 α4β1-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 α4β1 -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. Inflammation in the gut pertaining to inflammatory bowel disease can be controlled in a similar fashion. Blocking α4β7-integrin with a humanized, monoclonal antibody, specific to the α4β7 heterodimer inhibits the migration of leukocytes into the inflamed intestinal tissue, thus, reducing inflammation in the gut. 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.
Keywords	TGA4;integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor);CD49D;integrin alpha-4;CD49d;269C wild type

GENE INFORMATION

Gene Name	ITGA4
Entrez Gene ID	3676
UniProt ID	P13612

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