

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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## Anti-Integrin alpha-4/beta-7 [Vedolizumab (LDP-02)] Bulk Size Ab04181-10.0-BT

Isotype and Format: Human IgG1, Kappa

Clone Number: Vedolizumab (LDP-02)

**Alternative Name(s) of Target:** Integrin α4β7; CD49D; ITGA4:ITGB7; Peyer patches-specific homing receptor LPAM-1; ITGA4; Integrin alpha-4; CD49 antigen-like family member D; Integrin alpha-IV; VLA-4 subunit alpha; ITGB7; Integrin beta-7; Gut homing receptor beta subunit; ACT-1; LDP02; MLN-02; MLN002; MLN02; ENTYVIO

**UniProt Accession Number of Target Protein:** P26010; P13612

Published Application(s): therapeutic, FC

#### Published Species Reactivity: Human

**Immunogen:** This humanized antibody is derived from parental mouse antibody ACT-1 and was generated by grafting the CDRs of the mouse antibody onto human framework regions.

**Specificity:** This antibody is specific for human  $\alpha 4\beta 7$  integrin and does not cross react with alpha(4)beta(1) and alpha(E)beta(7) integrins. This antibody does not bind majority of memory CD4(+) T lymphocytes (60%), neutrophils, and most monocytes. It binds to a subset (approximately 25%) of human peripheral blood memory CD4(+) T lymphocytes that include gut-homing interleukin 17 T-helper lymphocytes. It also binds to eosinophils at high levels, and to naive T-helper lymphocytes, naive and memory cytotoxic T lymphocytes, B lymphocytes, natural killer cells, and basophils at lower levels **Application Notes:** The binding characterization of this antibody for human alpha 4 beta 7 integrin was done using flow cytometry on Hut-78 cells (US7147851B1). In a double-blind, placebo-controlled trial this antibody was more effective than placebo for the induction of clinical and endoscopic remission in patients with active ulcerative colitis (PMID: 15958805). In a phase II clinical trial, it was reported that this antibody is well tolerated in patients with active Crohn's disease and therapy with this antibody had a dosedependent beneficial effect on clinical remission (PMID: 18829392). This antibody exclusively binds alpha4 beta7 integrin and modulates inflammation in the gastrointestinal tract without inducing the systemic immunosuppression. This antibody binds memory CD4(+) T and B lymphocytes with sub nanomolar potency (EC(50) = 0.3-0.4 nM). This antibody inhibits adhesion of alpha(4)beta(7)-expressing cells to mucosal addressing cell adhesion molecule 1 (median inhibition concentration [IC(50)] = 0.02-0.06microg/ml) and fibronectin (IC(50) = 0.02 microg/ml), but not vascular cell adhesion molecule 1. The pharmacologic properties of vedolizumab, in conjunction with the gastrointestinal tropism of alpha(4)beta(7) integrin function, make it a suitable for treatment of patients with inflammatory bowel

diseases (PMID: 19509315).

**Antibody First Published in:** Feagan et al. Treatment of ulcerative colitis with a humanized antibody to the alpha4beta7 integrin. N Engl J Med. 2005 Jun 16;352(24):2499-507. PMID:15958805

**Note on publication:** This study reports the results of treatment with MLN02, a humanized antibody to the alpha4beta7 integrin, in patients with active ulcerative colitis.

### **Product Form**

Size: 1 mg Purified antibody in bulk size.Purification: Protein A affinity purifiedSupplied In: PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.