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## Product Data Sheet

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Product Name: Etrolizumab

Cat. No.: GC68283

### Chemical Properties

Cas. No. 1044758-60-2

Formula M.Wt

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

Etrolizumab (rhuMAb Beta7) is a gut-selective, anti-**β7 integrin** monoclonal antibody. Etrolizumab is specific targeting of the β7 subunit of α4β7 and αEβ7 integrins with  $K_i$  values of 18 nM and 1800 pM for Human α4β7 and Human αEβ7-293, respectively. Etrolizumab can be used in research of inflammatory bowel disease (IBD)<sup>[1][2]</sup>.

Etrolizumab (rhuMAb Beta7) binds the β7 subunit of both α4β7 and αEβ7 integrins with high affinity, with  $K_D$  values of 18 nM, 1800 pM, 181 pM, 116 pM, 57 pM, 31.7 pM, and 25.7 pM for Human α4β7, Human αEβ7-293, Mouse α4β7-38C13, Human α4β7-293, Rabbit PBLs, Human PBLs, and Cyno PBLs, respectively<sup>[1]</sup>.

Etrolizumab (RPMI 8866 cells and αEβ7-293 cells) blocks the interaction of α4β7 with its cognate ligands MAdCAM-1 and VCAM-1 with  $IC_{50}$  values of 0.075 and 0.089 nM, respectively, and blocks the interaction between αEβ7 and its ligand E-cadherin with an  $IC_{50}$  value of 3.96 nM<sup>[1]</sup>.

Etrolizumab (rhuMAb Beta7; 5 mg/kg; i.v.; once; normal female BALB/c mice) decreases β7 integrins on T lymphocytes<sup>[2]</sup>.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Etrolizumab (200 µg (100 µL); i.p.; once) inhibits lymphocyte homing in the CD45RB<sup>high</sup> T cell-reconstituted SCID mouse model of colitis<sup>[2]</sup>.

Animal Model: Normal female BALB/c mice (17-21 g)<sup>[2]</sup>

Dosage: 5 mg/kg

Administration: Intravenous injection; once

Result: Had 98.3% of intraepithelial CD8<sup>+</sup> T-cell β7 integrin receptors and 90.0% of intraepithelial CD4<sup>+</sup> T-cell β7 integrin receptors after 24 h.

Animal Model: SCID mouse model of colitis<sup>[2]</sup>

Dosage: 200 µg (100 µL)

Administration: Intraperitoneal injection; once

Result: Blocked lymphocyte recruitment and homing to the inflamed colon.

[1]. Tang MT, et, al. Review article: nonclinical and clinical pharmacology, pharmacokinetics and pharmacodynamics of etrolizumab, an anti-β7 integrin therapy for inflammatory bowel disease. Aliment Pharmacol Ther. 2018 Jun;47(11):1440-1452.

[2]. Stefanich EG, et, al. A humanized monoclonal antibody targeting the β7 integrin selectively blocks intestinal homing of T lymphocytes. Br J Pharmacol. 2011 Apr;162(8):1855-70.

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