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Product Data Sheet

Etrolizumab

Cat. No.:	HY-P9984
CAS No.:	1044758-60-2
Target:	Integrin
Pathway:	Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

Description	Etrolizumab (rhuMAb Beta7) is a gut-selective, anti- β 7 integrin monoclonal antibody. Etrolizumab is specific targeting of the β 7 subunit of α 4 β 7 and α E β 7 integrins with K _i values of 18 nM and 1800 pM for Human α 4 β 7 and Human α E β 7-293, respectively. Etrolizumab can be used in research of inflammatory bowel disease (IBD) ^{[1][2]} .		
IC ₅₀ & Target	α4β7	αΕβ7	
In Vitro	Etrolizumab (rhuMAb Beta7) binds the β7 subunit of both α4β7 and αΕβ7 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 αΕβ7-293, Mouse α4β7-38C13, Human α4β7- 293, Rabbit PBLs, Human PBLs, and Cyno PBLs, respectively ^[1] . Etrolizumab (RPMI 8866 cells and αΕβ7-293 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 αΕβ7 and its ligand E- cadherin with an IC ₅₀ value of 3.96 nM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	Etrolizumab (rhuMAb Beta7; 5 mg/kg; i.v.; once; normal female BALB/c mice) decreases β7 integrins on T lympho Etrolizumab (200 μg (100 μL); i.p.; once) inhibits lymphocyte homing in the CD45RB ^{high} T cell-reconstituted SCID model of colitis ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Animal Model: Normal female BALB/c mice (17-21 g) ^[2]		
	Dosage:	5 mg/kg	
	Administration:	Intravenous injection; once	
	Result:	Had 98.3% of intraepithelial CD8 ⁺ T-cell β 7 integrin receptors and 90.0% of intraepithelial CD4 ⁺ T-cell β 7 integrin receptors after 24 h.	
	Animal Model:	SCID mouse model of colitis ^[2]	
	Dosage:	200 μg (100 μL)	

Administration:	Intraperitoneal injection; once
Result:	Blocked lymphocyte recruitment and homing to the inflamed colon.

REFERENCES

[1]. Tang MT, et, al. Review article: nonclinical and clinical pharmacology, pharmacokinetics and pharmacodynamics of etrolizumab, an anti- β 7 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.

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

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