# Data Sheet (Cat.No.T10497)



## Benralizumab

## **Chemical Properties**

CAS No.: 1044511-01-4

Formula:

Molecular Weight: Benralizumab

Appearance: no data available

Storage: store at low temperature

store at -80°C

## **Biological Description**

Description	Benralizumab (MEDI-563) is a monoclonal antibody targeting the interleukin-5 receptor alpha (IL-5Rα). It enhances antibody-dependent cell-mediated cytotoxicity, leading to a rapid depletion of eosinophils. Benralizumab is used for severe eosinophilic asthma and can be employed to prevent exacerbations of chronic obstructive pulmonary disease.
Targets(IC50)	Apoptosis,IL Receptor,Interleukin
In vitro	The dissociation constants of the extracellular domain of recombinant human and cynomolgus IL-11R $\alpha$ by Benralizumab (MEDI-563 ) were 42 pM and 5 pM, respectively [2]. When inhibiting IL-5-induced proliferation of CTLL-48 cells transfected with recombinant human IL-2R $\alpha$ $\beta$ (5 pM-1 nM, 100 hours), the IC50 of benalizumab was 0.3 nM [2]. Benalizumab specifically binds to constructs containing human IL-5R $\alpha$ D1 and plays a role in mediating ADCC (antibody-dependent cell-mediated cytotoxicity) of human eosinophils and basophils, with EC50 values of 0.9 pM and 0.5 pM, respectively. In addition, it also promotes eosinophil apoptosis [2].
In vivo	Benalizumab (MEDI-563) (0-30 mg / kg; intravenous injection; once every 3 weeks for 12 weeks) can reduce peripheral blood and bone marrow eosinophils [2].

#### Reference

Menzies-Gow A, et al. Corticosteroid tapering with benralizumab treatment for eosinophilic asthma: PONENTE Trial. ERJ Open Res. 2019 Sep 25;5(3). pii: 00009-2019.

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