

Biologic Therapies for Severe Asthma

Agent	Target	Route	Age	Indication	Blood Eosinophils	Exacerbation History
Omalizumab	IgE	SC	≥6 yrs	Uncontrolled moderate-to-severe persistent allergic asthma	-	-
Mepolizumab	IL-5	SC	≥6 yrs	Severe asthma and eosinophilic phenotype	≥150 cells/mcL	≥2
Reslizumab	IL-5	IV	≥18 yrs	Severe asthma and eosinophilic phenotype	≥400 cells/mcL	≥1
Benralizumab	IL-5Rα	SC	≥12 yrs	Severe asthma and eosinophilic phenotype	≥300 cells/mcL	≥2
Dupilumab	IL-4Rα	SC	≥12 yrs	Moderate-to-severe asthma with eosinophilic phenotype or with OCS-dependent asthma regardless of phenotype	≥150 cells/mcL	≥2

IV, intravenous; SC, subcutaneous.

Omalizumab [prescribing information]. South San Francisco, CA: Genentech, Inc.; 1993 (revised 05/2019); Mepolizumab [prescribing information]. Philadelphia, PA: GlaxoSmithKline, LLC; 2015 (revised 9/2019); Reslizumab [prescribing information]. West Chester, PA: Teva Respiratory, LLC; 2016 (revised 2/2020);

Benralizumab [prescribing information]. Wilmington, DE: AstraZeneca Pharmaceuticals, LP; 2017 (revised 10/2019); Dupilumab [prescribing information]. Tarrytown, NY: Regeneron Pharmaceuticals, Inc.; 2017 (revised 6/2020).