

Catalog# BP-50554

Eculizumab Biosimilar, Human C5 Monoclonal Antibody

Eculizumab, a recombinant humanized anti-C5 (the terminal Complement component 5) monoclonal antibody, selectively targets and inhibits the terminal portion of the complement cascade. Eculizumab is a first-in-class terminal complement inhibitor to treat paroxysmal nocturnal hemoglobinuria (PNH) with excessive destruction of red blood cells (hemolysis). Eculizumab is also the first agent to treat atypical hemolytic uremic syndrome (aHUS) with abnormal blood clots to form in small blood vessels throughout the body, leading to kidney failure, damage to other vital organs and premature death.

The complement immune system destroys and removes foreign particles by the complement cascade triggered by foreign particles. The complement proteins activated in order create holes or pores in the invading organisms, leading to their destruction. The complement immune system in patients can also destroy healthy cells and tissue, resulting in excessive destruction of red blood cells (hemolysis) or abnormal blood clots to form in small blood vessels throughout the body.

When activated, C5 at a late stage in the complement cascade is involved in activating host cells, thereby attracting pro-inflammatory immune cells, while also destroying cells by triggering pore formation. Eculizumab specifically binds to C5 and inhibits the cleavage of C5 to C5a (a potent anaphylatoxin with prothrombotic and proinflammatory properties) and C5b by the C5 convertase, preventing the generation of the terminal complement complex C5b-9 (which also has prothrombotic and proinflammatory effects). Both C5a and C5b-9 cause the terminal complement-mediated events that are characteristic of PNH and aHUS. By doing so, the normal, disease-preventing functions of proximal complement system are largely preserved, while the properties of C5 that promote inflammation and cell destruction are impeded.

Product Details	
CAS No.	219685-50-4
Species Reactivity	Human IgG1
Source	Eculizumab biosimilar CHO stable cell line
Isotype	Human IgG2/4 kappa
Class	Monoclonal
Type	Antibody
Clone	Eculizumab Biosimilar
Conjugate	Unconjugated
Immunogen	Human C5, the terminal complement component 5
Purity	>95%
Molecular Weight	145.74 kDa
Protein Concentration	1 mg/ml
Formulation	0.2 μ M filtered PBS solution, pH 6.0
Storage conditions	4°C for short time, -20°C or -80°C for long time.