Catalog# BP- 50563

Gemtuzumab Biosimilar (CD33 Monoclonal Antibody)

Gemtuzumab is a recombinant humanized IgG4 kappa antibody which is conjugated with calicheamicin derivative, a cytotoxic antitumor antibiotic isolated from fermentation of *Micromonospora echinospora ssp. calichensis*. Gemtuzumab ozogamicin has approximately 50% of the antibody loaded with 4-6 moles calicheamicin per mole of antibody Label. The antibody is specifically directed against the CD33 antigen present on leukemic myeloblasts in most patients with acute myeloid leukemia (AML). By binding to the CD33 antigen on tumors, the cytotoxic agent blocks the growth of cancerous cells and causes cell death.

Gemtuzumab is directed against the CD33 antigen expressed by hematopoietic cells. Binding of the anti-CD33 antibody portion of Gemtuzumab with the CD33 antigen results in the formation of a complex that is internalized. Upon internalization, the calicheamicin derivative is released inside the lysosomes of the myeloid cell. The released calicheamicin derivative binds to DNA in the minor groove resulting in site-specific DNA double strand breaks via formation of a p-benzene diradical. Eventually, cell death is induced.

Product Details	
CAS No.	220578-59-6
Species Reactivity	Human
Source	Gemtuzumab biosimilar CHO stable cell line
Isotype	Human IgG4 kappa
Class	Monoclonal
Type	Antibody
Clone	Gemtuzumab Biosimilar
Conjugate	Unconjugated
Immunogen	Human CD33 protein
Purity	>95%
Molecular Weight	145.22 kDa
Protein Concentration	1 mg/ml
Formulation	0.2 μM filtered PBS solution, pH 7.4
Storage conditions	4°C for short time, -20°C or -80°C for long time.