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Human CD33 Monoclonal Antibody

Catalog No.: YR0016

Basic Information

Molecular Weight
150 kDa

Endotoxin
<1EU/mg (<0.001EU/μg)Determined by LAL gel clotting assay

Sterility
0.2 μm filtration

Aggregation
<5% Determined by SECP

Purity
>95% Determined by SDS-PAGE

Background

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.

Reported Applications

ELISA,neutralization,functional assays such as bioanalytical PK and ADA assays,and those assays for studying biological pathways

Immunogen Information

Clone
Gemtuzumab Biosimilar

Isotype
Human IgG4 kappa

Immunogen
Human CD33

RecommendedIsotype Control(s)
In Vivo Grade Recombinant Human IgG4-S228P Kappa Isotype Control Antibody

Recommended Dilution Buffer
1×PBS pH 7.3

Contact

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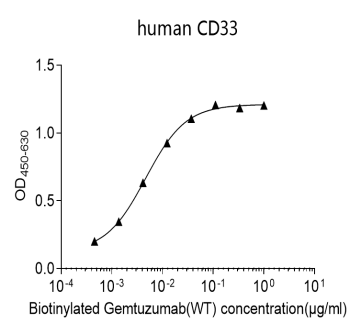
Product Information

Production
Purified from cell culture supernatant in an animal-free facility

Purification
Protein A or G purification

Storage
Store at -20℃

Validation Data



Direct ELISA binding curve demonstrating the recognition of Human Anti-Human CD33 (Research Grade Gemtuzumab Biosimilar) Monoclonal Antibody to CD33. The target protein was coated onto the microplate well surface, followed by binding of the antibody. Neutravidin HRP conjugate was used for detection.