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Anti-Human CD79B (Polatuzumab Biosimilar)

Catalog Number:	504901, 504902, 504903
Size:	1 mg, 5 mg, 20 mg
Regulatory Status:	RUO

PRODUCT DETAILS

Clone:	Polatuzumab
Application:	Flow cytometry, animal model study
Format:	Liquid
Product Description:	Anti-Human CD79B (Polatuzumab Biosimilar)
Isotype:	Human IgG1
Clonality:	Recombinant
Immunogen:	Human CD79B
Species specificity:	Human
Purity:	>95% by reducing SDS-PAGE
Grade:	In vivo
Storage Conditions:	4ºC
Maximal Shelf Life:	12 months

BACKGROUND INFORMATION

Polatuzumab, as a therapeutic, is an antibody–drug conjugate (ADC) composed of a humanized monoclonal antibody linked to a potent cytotoxic small molecule. The antibody component is an immunoglobulin G1 kappa (IgG1κ) monoclonal antibody engineered to specifically recognize and bind to human CD79b, a transmembrane component of the B-cell receptor complex. Structurally, the antibody portion comprises two identical heavy chains and two identical light chains connected by disulfide bonds, forming the characteristic Y-shaped configuration typical of IgG molecules. It has an approximate molecular mass of 150 kilodaltons (kDa) and is produced in mammalian expression systems such as Chinese Hamster Ovary (CHO) cells, which ensure appropriate folding and glycosylation.

The antigen-binding regions of Polatuzumab are defined by complementarity-determining regions (CDRs) located in the variable domains of the heavy (VH) and light (VL) chains. These domains provide high-affinity recognition of an epitope in the extracellular portion of CD79b, a signaling subunit involved in B-cell receptor activation. Functionally, Polatuzumab binds to CD79b on the surface of B-lineage cells and is rapidly internalized through receptor-mediated endocytosis. The Fc (fragment crystallizable) region of the IgG1 backbone additionally contributes structural stability and maintains typical Fc–neonatal receptor (FcRn) interactions, which extend the molecule’s half-life.