Anti-Human CD20 monoclonal antibody

Product Name

Anti-Human CD20 monoclonal antibody

Size/Catalog Number

500μg / GMP-TL502-0500

Product Information

Expression system: Chinese Hamster Ovary (CHO) Cells
Purity: > 90% as determined by SDS-PAGE and HPLC
Endotoxin: < 0.1 EU per 1 μg of protein (LAL method)
Activity: Binding activity with PBMC
Purification: Protein A sepharose affinity
Form： Liquid
Storage Buffer: 20mM Phosphate Buffer, pH 7.4 (containing 150 mM NaCl), Preservative: Human Serum Albumin

Background

The recombinant humanized anti-CD20 monoclonal antibody is an antibody produced via CHO stable cell line expression system, specifically targeting the CD20 molecule on B-cell surfaces. Through high-affinity binding, it triggers complement-dependent cytotoxicity (CDC) and antibody-dependent cellular phagocytosis (ADCP), inducing mitochondrial pathway apoptosis in CD20+ B cells. In ex vivo B-cell depletion systems, this antibody efficiently eliminates non-Hodgkin lymphoma cells and autoreactive B-cell clones. Its Fc segment, engineered with glycosylation modifications (e.g., enhanced fucosylation), strengthens binding to FcγRIIIa (V158 variant), significantly enhancing NK cell-mediated antibody-dependent cellular cytotoxicity (ADCC). In CAR-T therapy development, it serves as an ex vivo B-cell depletion agent to optimize T-cell starting purity and mitigate cytokine release syndrome (CRS) risks by modulating residual B-cell levels. Manufactured using animal component-free media and affinity chromatography, the product complies with release specifications through stringent control of host protein residuals, host DNA residuals, and endotoxin levels. It is suitable for B-cell lymphoma immunotherapy, autoimmune disease cell therapies, and bispecific antibody development.

Stability & Storage

Stable for up to 24 months when stored at 2-8°C under sterile condition.

References

1. Macardle PJ, Nicholson IC (2003). CD20. J. Biol. Regul. Homeost. Agents 16 (2): 136–8.PMID 12144126.
2. Tamayose K, Sato N, Ando J; et al. (2002). CD3-negative, CD20-positive T-cell prolymphocytic leukemia: case report and review of the literature. Am. J. Hematol. 71 (4): 331–5. doi:10.1002/ajh.10224. PMID 12447967.
3. Küster H, Zhang L, Brini AT; et al. (1992). The gene and cDNA for the human high affinity immunoglobulin E receptor beta chain and expression of the complete human receptor. J. Biol. Chem. 267 (18): 12782–7. PMID 1535625.

Intended Us

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