

Anti-Human CD52 monoclonal antibody

Product Name

Anti-Human CD52 monoclonal antibody

Size / Catalog Number

100 μ g / GMP-TL112-0100

Product Information

Expression system: HEK293 cells

Purity: > 90% as determined by SDS-PAGE and HPLC

Endotoxin: < 0.1 EU per 1 μ g of protein (LAL method)

Activity: Binding rate with MC/CAR is \geq 90%

Purification: Protein A sepharose affinity

Form: Liquid

Storage Buffer: 20 mM Phosphate Buffer, pH7.4 (containing 150 mM NaCl).

Preservative: Human Serum Albumin

Background

This humanized anti-human CD52 monoclonal antibody is expressed in HEK-293 cells and affinity-purified, exhibiting low immunogenicity. It specifically targets the CD52 antigen (CAMPATH-1), a GPI-anchored glycoprotein with a 12-amino acid core (GQNDSQTSSPS), having an apparent molecular weight of 21-28 kDa (core ~8-9 kDa). CD52 is highly expressed on lymphocytes (e.g., T/B cells, up to 5×10^5 molecules/cell), monocytes/macrophages, eosinophils, etc., and is widely present on various lymphoid malignancies. Antibody binding mediates CD52 cross-linking, triggering signaling that induces CDC, ADCC, and apoptosis, leading to profound lymphocyte depletion and promoting the reconstitution of regulatory lymphocyte subsets. Targeting CD52 holds significant potential for therapeutic applications in B-cell chronic lymphocytic leukemia, multiple sclerosis, autoimmune disorders, and cell therapy product development.

Stability & Storage

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

References

1. Quigley MM, Bethel KJ, Sharpe RW, *et al.* CD52 expression in hairy cell leukemia. *Am J Hematol.* 2003 Dec;74(4):227-30.
2. Rowan W, Tite J, Topley P, *et al.* Cross-linking of the CAMPATH-1 antigen (CD52) mediates growth inhibition in human B- and T-lymphoma cell lines, and subsequent emergence of CD52-deficient cells. *Immunology.* 1998 Nov;95(3):427-36.

Intended Use

For research and manufacturing purposes only.