

Rolistobart Biosimilar - Research Grade

Product Code: ICH5274

More Information

Species Reactivity: Human

Target: LILRB4

Concentration: >1mg/ml

Isotype: Human IgG4 - kappa

Host: CHO Cells

product name H2: Rolistobart Biosimilar - Research Grade

Sequence: <https://www.imgt.org/mAb-DB/>

Buffer: ICH3002

UniProt: Q8NHJ6

Shipping Conditions: Blue ice

background: ICH5274 is a research-grade biosimilar of rolistobart, an anti-LILRB4 antibody. It is supplied as an unconjugated, non-therapeutic analog of the originator molecule, engineered around the LILRB4 (ILT3 / CD85k) target and matched to the reported human IgG4-kappa framework. It is intended strictly for research use only and is not a clinical drug. The originator rolistobart is being developed as a myeloid-checkpoint blocker that binds LILRB4 to relieve LILRB4-driven immune suppression in the tumor microenvironment. This biosimilar reproduces the target-binding behavior of that molecule so investigators can use it as a consistent, well-characterized tool for in-vitro and functional studies without sourcing scarce clinical material. It is produced to in-vivo research standards with low endotoxin (research grade less than 1 EU/mg; ultra-low grade less than 0.5 EU/mg) and is available in bulk milligram-to-gram quantities, supporting reproducible binding, neutralization, blockade, and control experiments. Because LILRB4 is a human target and this is an IgG4 format, it is best suited to human-system and functional assays

rather than mouse dosing studies. LILRB4, also called ILT3, CD85k, or gp49B (murine ortholog), is an inhibitory member of the leukocyte immunoglobulin-like receptor B family and a recognized immune checkpoint on myeloid-lineage cells. Its cytoplasmic tail carries immunoreceptor tyrosine-based inhibitory motifs (ITIMs) that recruit phosphatases such as SHP-1 and SHIP-1 to dampen activating signals. LILRB4 restrains monocyte and macrophage activation, suppresses CD4 T-helper responses, and can drive CD8 T-suppressor generation via tolerogenic dendritic cells, contributing to immune evasion by MDSCs and tumor-associated macrophages. The fibronectin N-terminal domain has been identified as a ligand. In acute myeloid leukemia, LILRB4 promotes leukemic cell infiltration and T-cell suppression, making it an actively pursued target for myeloid checkpoint blockade in AML and solid tumors.

Other names: B4, CD85 antigen-like family member K, Immunoglobulin-like transcript 3, ILT-3, Leukocyte immunoglobulin-like receptor 5, LIR-5, Monocyte inhibitory receptor HM18, Leukocyte immunoglobulin-like receptor subfamily B member 4

Specificity: Detects human LILRB4

Purification Method: This monoclonal antibody was purified using Protein A

Formulation: Sterile, preservative-free, solution in PBS. BSA and Azide free.

Purity: >95% by SDS-PAGE

Endotoxin: ≤ 1.0 EU/mg as determined by the LAL method

Storage: This biosimilar is stable when stored at 2-8°C. For longer term storage (> 3 months) it is recommended to store this antibody at -20°C or -70°C.

Applications: Functional Assays

Application Notes: This biosimilar is for research use only (RUO): it is not for diagnostic or therapeutic procedures and cannot be purchased by patients.

Use: Products are for research use only. Not for use in diagnostic or therapeutic procedures.

Delivery Time: 4 weeks