Biotinylated Human CLEC12A / MICL / CLL-1 Protein, His,Avitag™

Catalog # CLA-H82E6

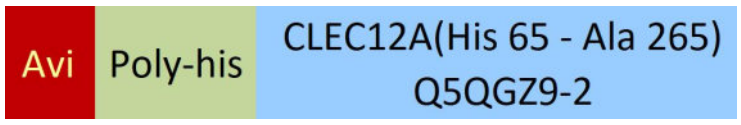
Synonym

CLEC12A,MICL,CLL-1,CLL1,DCAL2,DCAL-2,CD371

Source

Biotinylated Human CLEC12A, His,Avitag(CLA-H82E6) is expressed from human 293 cells (HEK293). It contains AA His 65 - Ala 265 (Accession # Q5QGZ9-2).
Predicted N-terminus: Gly

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the N-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 27.3 kDa. The protein migrates as 40-55 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

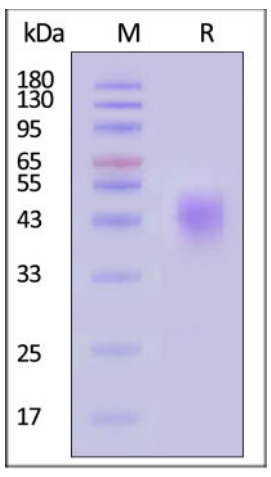
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

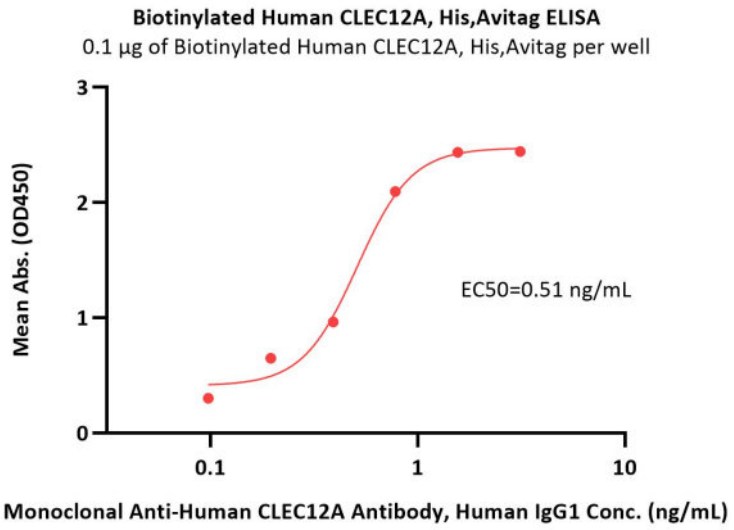
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

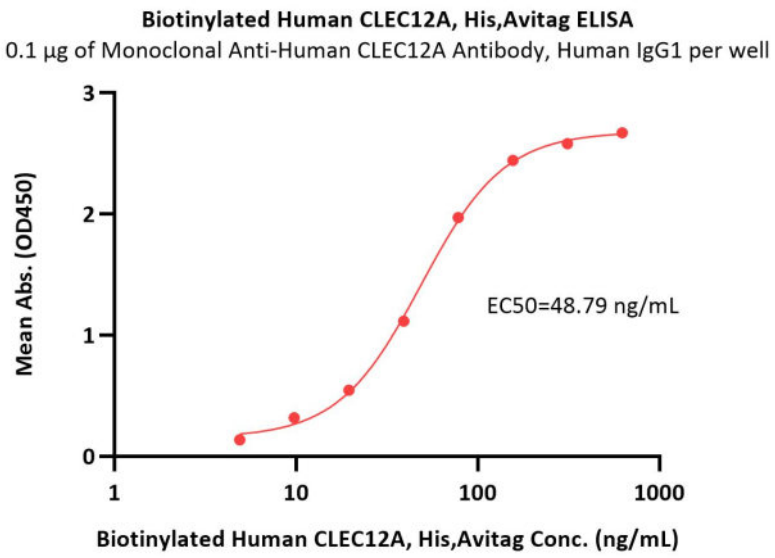


Biotinylated Human CLEC12A, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA

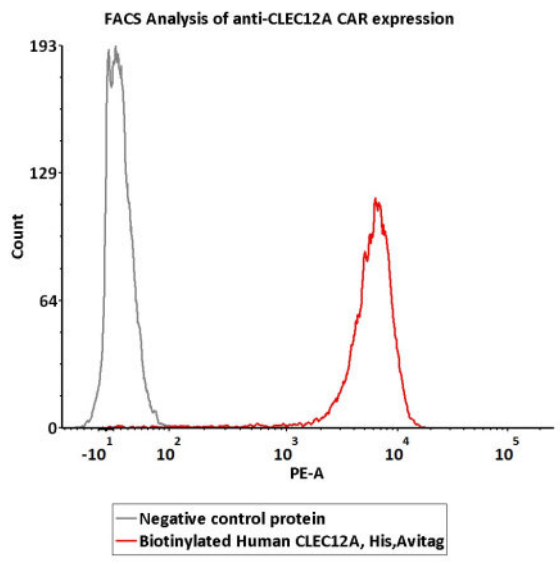


Immobilized Biotinylated Human CLEC12A, His,Avitag (Cat. No. CLA-H82E6) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate, can bind Monoclonal Anti-Human CLEC12A Antibody, Human IgG1 with a linear range of 0.1-0.8 ng/mL (QC tested).



Immobilized Monoclonal Anti-Human CLEC12A Antibody, Human IgG1 at 1 μg/mL (100 μL/well) can bind Biotinylated Human CLEC12A, His,Avitag (Cat. No. CLA-H82E6) with a linear range of 5-78 ng/mL (Routinely tested).

Bioactivity-FACS



2e5 of anti-CLEC12A CAR-293 cells were stained with 100 μL of 10 μg/mL of Biotinylated Human CLEC12A, His,Avitag (Cat. No. CLA-H82E6) and negative control protein respectively, washed and then followed by PE-SA and analyzed with FACS (Routinely tested).

Background

CLEC12A (C-type lectin domain family 12 member A) is also known as CLL1, DCAL2, MICL. Clec12a is an inhibitory receptor for uric acid crystals that regulates inflammation in response to cell death. Cell surface receptor that modulates signaling cascades and mediates tyrosine phosphorylation of target MAP kinases. Evidence of distinct disease propagating stem cells in myelodysplastic syndrome (MDS) has emerged in recent years. The role of CLEC12A in MDS, however, remains to be elucidated. Furthermore, CLEC12A has been proposed as a promising marker of leukaemic stem cells in AML.

Clinical and Translational Updates