# Biotinylated Human CLEC12A / MICL / CLL-1 Protein, Avitag™, His Tag, premium grade

Catalog # CLA-H82E6



## **Synonym**

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

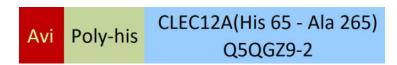
#### Source

Biotinylated Human CLEC12A Protein, Avitag, His Tag, premium grade(CLA-H82E6) is expressed from human 293 cells (HEK293). It contains AA His 65 - Ala 265 (Accession # Q5QGZ9-2).

Predicted N-terminus: Gly

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

## **Molecular Characterization**



This protein carries an Avi tag (Avitag<sup>TM</sup>) 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 <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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 0.1 EU per µg by the LAL method.

#### **Sterility**

Negative

#### Mycoplasma

Negative.

#### **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  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.

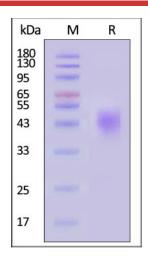
**SDS-PAGE** 



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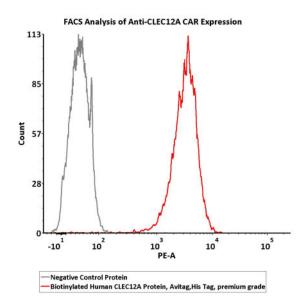
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Biotinylated Human CLEC12A Protein, Avitag, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Prestained Protein Marker</u>).

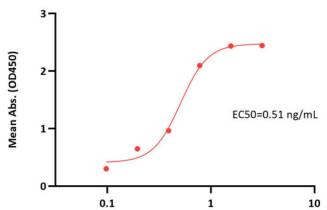
## **Bioactivity-FACS**



2e5 of anti-CLEC12A CAR-293 cells were stained with 100  $\mu$ L of 10  $\mu$ g/mL of Biotinylated Human CLEC12A Protein, Avitag,His Tag, premium grade (Cat. No. CLA-H82E6) and negative control protein respectively, washed and then followed by PE-SA and analyzed with FACS (Routinely tested).

## **Bioactivity-ELISA**

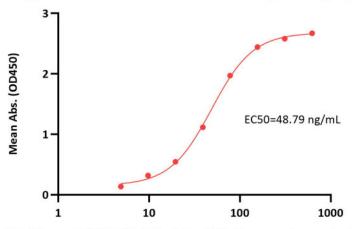
Biotinylated Human CLEC12A Protein, Avitag™,His Tag, premium grade ELISA 0.1 μg of Biotinylated Human CLEC12A Protein, Avitag™,His Tag, premium grade per well



Monoclonal Anti-Human CLEC12A Antibody, Human IgG1 Conc. (ng/mL)

Immobilized Biotinylated Human CLEC12A Protein, Avitag,His Tag, premium grade (Cat. No. CLA-H82E6) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate, can bind Monoclonal Anti-

# Biotinylated Human CLEC12A Protein, Avitag™, His Tag, premium grade ELISA 0.1 μg of Monoclonal Anti-Human CLEC12A Antibody, Human IgG1 per well



Biotinylated Human CLEC12A Protein, Avitag™, His Tag, premium grade Conc. (ng/mL)

Immobilized Monoclonal Anti-Human CLEC12A Antibody, Human IgG1 at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human CLEC12A Protein,



# Biotinylated Human CLEC12A / MICL / CLL-1 Protein, Avitag™, His Tag, premium grade

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Human CLEC12A Antibody, Human IgG1 with a linear range of 0.1-0.8 ng/mL (QC tested).

Avitag, His Tag, premium grade (Cat. No. CLA-H82E6) with a linear range of 5-78 ng/mL (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** 

