Human CLEC12A / CLL-1 / DCAL2 Protein (ECD, His Tag)

Catalog Number: **11896-H07H**

General Information

Gene Name Synonym:

CD303; CD371; CLECSF11; CLECSF7; CLL-1; CLL1; DCAL-2; DLEC; HECL; MICL; PRO34150

Protein Construction:

A DNA sequence encoding the human CLEC12A (EAW96132.1) extracellular domain (His 75-Ala 275) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Predicted N terminal: His

Molecular Mass:

The recombinant human CLEC12A consists of 221 amino acids and has a calculated molecular mass of 26 kDa. The apparent molecular mass of rhCLEC12A is approximately 40-45 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

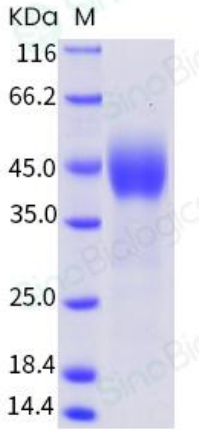
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CLEC12A is a member of the C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily. Members of this family share a common protein fold and have diverse functions, such as cell adhesion, cell-cell signaling, glycoprotein turnover, and roles in inflammation and immune response. CLEC12A is a negative regulator of granulocyte and monocyte function. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been determined. C-type lectins are the most diverse and prevalent lectin family in immunity. Using a novel CLEC12A -specific monoclonal antibody, experiments had shown that human CLEC12A was expressed primarily on myeloid cells, including granulocytes, monocytes, macrophages, and dendritic cells. Although CLEC12A was highly N-glycosylated in primary cells, the level of glycosylation was found to vary between cell types. CLEC12A surface expression was down-regulated during inflammatory/activation conditions in vitro, as well as during an in vivo model of acute inflammation. This suggests that CLEC12A may be involved in the control of myeloid cell activation during inflammation.

References

1.Lahoud MH, *et al.* (2009) The C-type lectin Clec12A present on mouse and human dendritic cells can serve as a target for antigen delivery and enhancement of antibody responses. J Immunol. 182(12): 7587-94. 2.Pyz E, *et al.* (2008) Characterisation of murine MICL (CLEC12A) and evidence for an endogenous ligand. Eur J Immunol. 38(4): 1157-63. 3.Marshall AS, *et al.* (2006) Human MICL (CLEC12A) is differentially glycosylated and is down-regulated following cellular activation. Eur J Immunol. 36(8): 2159-69.