Recombinant Rat CLEC4F/CLECSF13 Protein

Catalog Number: PKSR030313

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

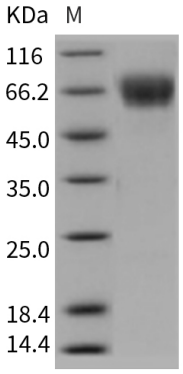
Description

Species	Rat
Source	HEK293 Cells-derived Rat CLEC4F/CLECSF13 protein Arg70-Ser550
Calculated MW	53.7 kDa
Observed MW	63-68 kDa
Accession	NP_446205.1
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

CLEC4F, a member of C-type lectins, was firstly purified from rat liver extract with high binding affinity to fucose, galactose and N-acetylgalactosamine, and un-sialylated glucosphingolipids with GalNAc or Gal terminus. However, the biological functions of CLEC4F have not been elucidated. Histochemical staining showed that mouse CLEC4F（mCLEC4F） is only expressed on F4/80+ cells localized in liver, and is undetectable in bone marrow, spleen, lymph nodes, or other tissues in adult mice. However, mCLEC4F is detected in the liver of embryonic day 11.5 (E11.5), which is 1.5 day earlier than the formation of liver (E10) and is 3.5 day earlier than the formation of bone marrow (E15-16). Moreover, recombinant mCLEC4F.Fc binds to alpha-galactoceramide in a Ca++-dependent manner, and both galactose and ceramide can partially inhibit CLEC4F.Fc binding to alpha-galactoceramide. Interestingly, mCLEC4F-deficient (mCEC4F k/o) mice produced far less cytokines than wild type littermates after intravenous injection ofalpha-galactoceramide. This suggests that mCLEC4F is not only a specific marker for Kupffer cells, but is also critical for the presentation of glycolipid antigen to NKT cells.

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