

Recombinant Rat Clec4a2 Protein, N-His-tagged

Product Information

Cat	IMP-4348
Official Symbol	Clec4a2
Product Overview	Recombinant rat CLEC4A2 (Q5YIS1) (Gln70-Ser235) was expressed with a polyhistidine tag at the N-terminus.
Description	<p>Dendritic cell immunoreceptor (DCIR), also known as C-type lectin domain family 4 member A (CLEC4A), C-type lectin superfamily member 6 (CLECSF6), is a single-pass type II C-type lectin receptor expressed mainly in dendritic cells (DCs), which is a negative regulator of DC expansion and has a crucial role in maintaining the homeostasis of the immune system. The Dectin-2 family of C-type lectins that includes Dectin-2, BDCA-2, DCIR, DCAR, Clecsf8 and Mincle. These type II receptors contain a single extracellular carbohydrate recognition domain and have diverse functions in both immunity and homeostasis. DCIR is the only member of the family which contains a cytoplasmic signalling motif and has been shown to act as an inhibitory receptor, while BDCA-2, Dectin-2, DCAR and Mincle all associate with FcRγ chain to induce cellular activation, including phagocytosis and cytokine production. Dectin-2 and Mincle have been shown to act as pattern recognition receptors for fungi, while DCIR acts as an attachment factor for HIV. In addition to pathogen recognition, DCIR has been shown to be pivotal in preventing autoimmune disease by controlling dendritic cell proliferation. DCIR expressed on antigen presenting cells and granulocytes and acts as an inhibitory receptor via an intracellular immunoreceptor tyrosine-based inhibitory motif (ITIM). It may also be involved via its ITIM motif in the inhibition of B-cell-receptor-mediated calcium mobilization and protein tyrosine phosphorylation. Additionally, DCIR can participate in the capture of HIV-1 and promote infection in trans and in cis of autologous CD4(+) T cells from human immature monocyte-derived DCs. DCIR acts as a ligand for HIV-1 and is involved in events leading to productive virus infection.</p>
Expression System	HEK293
Species	Rat
Tag	N-His
Predicted N Terminal	His
Form	Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5% mannitol and 0.01% Tween80.
Molecular Mass	The recombinant rat CLEC4A2 comprises 186 amino acids and has a predicted molecular mass of 21.8 kDa. The apparent molecular mass of the protein is approximately 32-36 kDa in SDS-PAGE under reducing

conditions.

Protein length

Gln70-Ser235

Endotoxin

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

Purity

> 95 % as determined by SDS-PAGE

Storage

Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Reconstitution

A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

SDS-PAGE

