

Recombinant Human Dectin-1/CLEC7A Protein

Catalog Number: PKSH031752

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

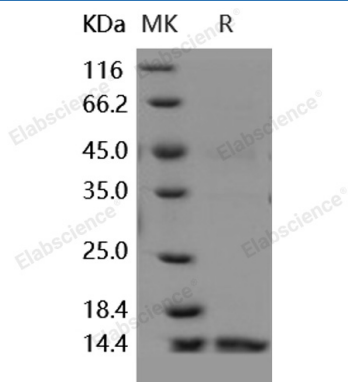
Description

Species	Human
Source	HEK293 Cells-derived Human Dectin-1/CLEC7A protein Thr66-Met201
Calculated MW	15.5 kDa
Observed MW	15 kDa
Accession	NP_072092.2
Bio-activity	Not validated for activity

Properties

Purity	> 90 % 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



> 90 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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Dectin-1 was recently identified as the most important receptor for beta-glucan. It is a type II transmembrane protein which binds beta-1,3 and beta-1,6 glucans, and is expressed on most cells of the innate immune system and has been implicated in phagocytosis as well as killing of fungi by macrophages, neutrophils and dendritic cells. Recognition of beta-glucan by dectin-1 triggers effective immune response, including phagocytosis and proinflammatory factor production, to eliminate infecting fungi, which especially benefits immunocompromised patients against opportunistic fungal infection. In addition, dectin-1 is involved in the adaptive immune response as well as autoimmune diseases and immune tolerance. Dectin-1 can recognize and respond to live fungal pathogens and is being increasingly appreciated as having a key role in the innate responses to these pathogens. In addition to its exogenous ligands, Dectin-1 can recognize an unidentified endogenous ligand on T cells and may act as a co-stimulatory molecule. Recent studies have highlighted the importance of Dectin-1 in anti-fungal immunity, in both mice and humans, and have suggested a possible involvement of this receptor in the control of mycobacterial infections.