Recombinant CLC4D protein (His tag)

Catalog Number	540889
Synonyms	C-type lectin superfamily member 8; C-type lectin-like receptor 6; CLEC-6; Dendritic cell-associated C-type lectin 3; DC-associated C-type lectin 3; Dectin-3; CD antigen CD368
Species	Human
Expression System	E. coli
Accession	Q8WXI8
Molecular Weight	Predictes a molecular mass of 22.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	39-215
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 39-215 aa (Q8WXI8) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human CLEC4D (C-type lectin domain family 4 member D) Fragment (aa 39-215) is a high-purity protein designed for immunological and infectious disease research. This fragment fully encompasses the functional C-type lectin domain, enabling targeted studies of pathogen recognition, innate immune signaling, and receptor-ligand interactions in a soluble, active format. CLEC4D, also known as Dectin-3 or CD368, is a calcium-dependent C-type lectin receptor that functions as a key pattern recognition receptor in the innate immune system. It is expressed on the cell membrane as a single-pass type II membrane protein and plays a critical role in detecting damage-associated molecular patterns (DAMPs) and pathogen-associated molecular patterns (PAMPs) from bacteria and fungi. Specifically, CLEC4D recognizes alpha-mannans on Candida albicans hyphae and mycobacterial trehalose 6,6'-dimycolate (TDM). Through interaction with signaling adapter FCER1G, CLEC4D forms functional complexes that trigger phosphorylation of immunoreceptor tyrosine-based activation motifs (ITAM), leading to SYK-CARD9-NF-κB pathway activation. This drives antigen-presenting cell maturation and promotes T-helper 1 and T-helper 17 cell responses. CLEC4D also functions as an endocytic receptor, potentially involved in antigen uptake, clearance, and presentation to T-cells at infection sites.