Recombinant CLC4A protein (His tag)

Catalog Number	548514
Synonyms	C-type lectin DDB27; C-type lectin superfamily member 6; Dendritic cell immunoreceptor; Lectin-like immunoreceptor; CD antigen CD367
Species	Human
Expression System	E. coli
Accession	Q9UMR7
Molecular Weight	Predictes a molecular mass of 21.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	70-237
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 70-237 aa (Q9UMR7) 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 CLEC4A (C-type lectin domain family 4 member A) Fragment (aa 70-237) – a high-purity protein fragment encompassing the complete C-type lectin domain. This product is engineered for studying carbohydrate-binding specificity, immune regulation, and antigen cross-presentation mechanisms in dendritic cells, serving as a critical tool for immunology and infectious disease research. C-type lectin domain family 4 member A (CLEC4A), also known as dendritic cell immunoreceptor or CD367, is a transmembrane C-type lectin receptor expressed on immune cells. It binds carbohydrates like mannose and fucose in a calcium-dependent manner and plays a key role in modulating immune responses. CLEC4A regulates antigen cross-presentation to CD8+ T cells, enhances cross-priming with TLR7/8 agonists, and inhibits B-cell receptor signaling and TLR9-mediated cytokine production via its immunoreceptor tyrosine-based inhibitory motif (ITIM). Located on the cell membrane as a single-pass type II protein with its extracellular domain exposed, it also facilitates HIV-1 interaction with dendritic cells, promoting viral entry through ITIM-associated signaling pathways involving phosphatases and kinases. This fragment covers the functional C-type lectin domain (aa 113-231), enabling focused investigation of its carbohydrate-binding and immunoregulatory functions.