Recombinant CLC4E protein (His tag)

Catalog Number	539225
Synonyms	C-type lectin superfamily member 9; Macrophage-inducible C-type lectin; MINCLE
Species	Human
Expression System	E. coli
Accession	Q9ULY5
Molecular Weight	Predictes a molecular mass of 22.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	41-219
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 41-219 aa (Q9ULY5) 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 CLEC4E (C-type lectin domain family 4 member E) Fragment (aa 41-219) – a high-purity protein fragment encompassing the complete C-type lectin domain. This product is an essential tool for investigating calcium-dependent pattern recognition in innate immunity, specifically targeting damage- and pathogen-associated molecular patterns. C-type lectin domain family 4 member E (CLEC4E), also known as MINCLE, is a transmembrane pattern recognition receptor critical to innate immune responses. It functions through calcium-dependent recognition of both damage-associated molecular patterns (DAMPs) from abnormal self-tissues and pathogen-associated molecular patterns (PAMPs) from microbes like bacteria and fungi. Notably, CLEC4E binds mycobacterial trehalose 6,6'-dimycolate (TDM) and fungal alpha-mannose residues, triggering signaling via FCER1G that activates SYK, CARD9, and NF-κB pathways. This drives antigen-presenting cell maturation and promotes T-helper 1 and 17 cell responses, enabling immune surveillance against pathogens and damaged tissues. The protein localizes to the cell membrane and phagocytic cups, facilitating its role in pathogen recognition and clearance.