Recombinant CD166 protein (His tag)

Catalog Number	542647
Synonyms	Activated leukocyte cell adhesion molecule; CD antigen CD166
Species	Human
Expression System	E. coli
Accession	Q13740
Molecular Weight	Predictes a molecular mass of 57.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 59 kDa band.

Product Information

Sequence Region	28-527
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 28-527 aa (Q13740) 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 CD166/ALCAM Fragment (aa 28-527) is a high-purity protein designed for studying cell adhesion and immune synapse formation. This fragment encompasses five critical immunoglobulin-like domains (V-type 1-2 and C2-type 1-3), making it an ideal tool for investigating heterotypic interactions with CD6, homotypic cell binding, and T-cell activation mechanisms in immunological and neurological research. The full-length CD166 antigen (ALCAM) is a single-pass type I membrane protein expressed on the cell surface, notably localized at immunological synapses between dendritic cells and T-cells. It functions as a key adhesion molecule that mediates both heterotypic interactions via binding to CD6—promoting T-cell activation, proliferation, and synapse maturation—and homotypic interactions between ALCAM-expressing cells, influencing hematopoietic stem cell engraftment, endothelial tube formation, and axon guidance. The protein also acts as a ligand for LILRB4, modulating T-cell inhibition, and plays roles in dendritic cell attachment to endothelium and osteoblast differentiation. The recombinant fragment (aa 28-527) retains the essential Ig-like domains responsible for these interactions, enabling focused studies on adhesion and signaling pathways without membrane-associated complexities.