Recombinant CD53 protein (His tag)

Catalog Number	546817
Synonyms	Cell surface glycoprotein CD53; Tetraspanin-25; Tspan-25; CD antigen CD53
Species	Human
Expression System	E. coli
Accession	P19397
Molecular Weight	Predictes a molecular mass of 10.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 10 kDa band.

Product Information

Sequence Region	107-181
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 107-181 aa (P19397) 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	Introducing the recombinant human Leukocyte surface antigen CD53 fragment (residues 107-181), a highly stable and soluble protein unit ideal for advancing research in immune cell signaling and membrane microdomain dynamics. This carefully selected fragment enables robust structural and biochemical studies, offering researchers a precise tool to explore CD53's critical roles in B-cell activation, adhesion, and inflammatory pathways. CD53, also known as Tetraspanin-25, is a multi-pass membrane protein that serves as a structural component of tetraspanin-enriched microdomains (TERMs), specialized platforms essential for receptor clustering and signal transduction. It plays pivotal roles in immune cell functions, including monocyte and B-cell activation, B-cell development via interleukin-7 receptor signaling, and BCR signaling by recruiting PKC to the plasma membrane. Additionally, CD53 stabilizes L-selectin expression to facilitate lymphocyte homing to lymph nodes and mediates metabolic and inflammatory responses in hepatocytes and adipose tissue through TNF-alpha and LPS signaling. Located primarily in the cell membrane and synapses, CD53 concentrates at contact sites between fused myotubes, underscoring its importance in cell adhesion, migration, and protein trafficking.