Recombinant CO2 protein (His tag)

Catalog Number	542032
Synonyms	C3/C5 convertase
Species	Human
Expression System	E. coli
Accession	P06681
Molecular Weight	Predictes a molecular mass of 25.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	21-243
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 21-243 aa (P06681) 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 Complement C2 Fragment (aa 21-243) - a high-purity protein fragment encompassing the complete Sushi 1, Sushi 2, and Sushi 3 domains, designed for studying the structural and functional properties of the classical, lectin, and GZMK complement pathways. Complement C2 serves as the catalytic component of the C3 and C5 convertase complexes within the complement system, a crucial cascade of proteins that facilitates pathogen phagocytosis and enhances adaptive immune signaling. The full-length protein is secreted and recruited to pathogen surfaces via complement C3b and C4b opsonins, where its cleaved serine protease form (C2b) activates C3 and C5 components, generating anaphylatoxins and opsonins essential for immune defense. This fragment preserves key functional domains while enabling focused investigation of domain-specific interactions in complement pathway mechanisms.