Recombinant CO4A protein (His tag)

Catalog Number	546728
Synonyms	Acidic complement C4; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 2; Complement C4b-alpha' chain
Species	Human
Expression System	E. coli
Accession	P0C0L4
Molecular Weight	Predictes a molecular mass of 42.27 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	957-1336
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 957-1336 aa (P0C0L4) 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 C4-A Fragment (residues 957-1336) is a high-purity, stable protein fragment designed for structural and biochemical research. This 380-amino acid fragment represents a soluble and functional unit of the Complement C4-A protein, which plays a critical role in the classical, lectin, and GZMK complement pathways. Ideal for studying immune system mechanisms, pathogen opsonization, and complement activation, this fragment supports advanced research in immunology and infectious disease. Complement C4-A is a key non-enzymatic component of the classical, lectin, and GZMK complement pathways, contributing to a cascade that enhances phagocytosis, pathogen breakdown, and adaptive immune signaling. The full-length protein is cleaved into multiple chains, including Complement C4b-A, which covalently binds to pathogen surfaces as an opsonin and recruits C2b to form C3 and C5 convertases, activating subsequent complement components. C4-A is secreted and localizes to synapses, axons, and dendrites, with C4b-A also associating with cell surfaces via thioester bonds. While the C4a anaphylatoxin fragment has structural similarity to inflammatory mediators, its specific role remains unclear and may be confounded by C3a/C5a contamination. This recombinant fragment (residues 957-1336) encompasses a stable domain selected for solubility and functional analysis, enabling focused studies on complement pathway mechanisms.