Recombinant NCF2 protein (His tag)

Catalog Number	539825
Synonyms	NCF-2; 67 kDa neutrophil oxidase factor; NADPH oxidase activator 2; Neutrophil NADPH oxidase factor 2; p67-phox
Species	Human
Expression System	E. coli
Accession	P19878
Molecular Weight	Predictes a molecular mass of 21.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	351-526
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 351-526 aa (P19878) 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 Neutrophil Cytosol Factor 2 (NCF-2) Fragment (residues 351-526) is a high-purity protein designed for studying the PB1 and SH3 domains. This 176-amino acid fragment provides a targeted tool for investigating NADPH oxidase complex activation and superoxide production mechanisms in human immune response research. Neutrophil Cytosol Factor 2 (NCF-2), also known as p67-phox, is a crucial subunit of the phagocyte NADPH oxidase complex in humans. This complex mediates electron transfer from cytosolic NADPH to molecular oxygen, generating superoxide anions (O2(-)) essential for microbial killing during phagocytosis. The activation process involves phosphorylation-dependent assembly of cytosolic subunits with the core NADPH oxidase complex at plasma or phagosomal membranes. NCF-2 is primarily localized in the cytoplasm and plays a vital role in transferring electrons through flavin adenine dinucleotide (FAD) and heme molecules to produce superoxide via outer-sphere reactions, making it fundamental to understanding innate immune responses and oxidative burst mechanisms.