Data Sheet (Cat.No.TMPY-03619)

TargetMol

p67phox Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	P67-PHOX;P67PHOX;neutrophil cytosolic factor 2;NCF-2;NOXA2
Protein Construction:	A DNA sequence encoding the human NCF2 (AAH01606.1) (Met1-Val526) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	AAH01606.1
Molecular Weight:	87.6 kDa (predicted); 80-90 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM Nacl, 10% glycerol, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

NCF2 (Neutrophil Cytosolic Factor 2, also known as NCF-2 and p67phox) is a Protein Coding gene. 4 alternatively spliced human isoforms have been reported. This gene encodes neutrophil cytosolic factor 2, the 67-kilodalton cytosolic subunit of the multi-protein NADPH oxidase complex found in neutrophils. This oxidase produces a burst of superoxide which is delivered to the lumen of the neutrophil phagosome. NCF2 belongs to the NCF2/NOXA1 family. NCF2, NCF1, and a membrane-bound cytochrome b558 are required for activation of the latent NADPH

oxidase. Mutations in the NCF2 gene, as well as in other NADPH oxidase subunits, can result in chronic granulomatous disease, a disease that causes recurrent infections by catalase-positive organisms.

Reference

Wientjes FB. et al., 1996, Semin Cell Biol. 6 (6): 357-65.
DeLeo FR. et al., 1997, J Leukoc Biol. 60 (6): 677-91.
Dorseuil O. et al., 1997, C R Seances Soc Biol Fil. 191 (2): 237-46.