Human CPLX3 / Complexin 3 Protein (His Tag)

Catalog Number: **14518-H07H**

General Information

Gene Name Synonym:

CPX-III; CPXIII; Nbla11589

Protein Construction:

A DNA sequence encoding the human CPLX3 (Q8WVH0) (Met1-Lys154) was expressed with an N-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: His

Molecular Mass:

The recombinant human CPLX3 comprises 174 amino acids and has a predicted molecular mass of 19.5 kDa. The apparent molecular mass of the protein is approximately 29-32 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

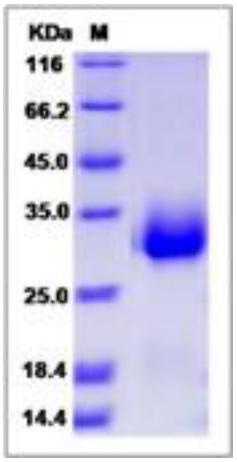
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CPLX3, also known as complexin 3, belongs to the complexin/synaphin family. As a SNARE-binding protein, complexin (CPX), can act either as a facilitator or as an inhibitor of membrane fusion, constituting a controversial dilemma. CPX acts sequentially on assembling SNAREpins, first facilitating zippering by nearly doubling the distance at which v- and t-SNAREs can engage and then clamping them into a half-zippered fusion-incompetent state. Specifically, the central helix of CPX allows SNAREs to form this intermediate energetic state at 9-15 nm but not when the bilayers are closer than 9 nm. Stabilizing the activated-clamped state at separations of less than 9 nm requires the accessory helix of CPX, which prevents membrane-proximal assembly of SNAREpins. CPLX3 binds to the SNARE core complex containing SNAP25, VAMP2 and STX1A.

References

1.Newton-Cheh C. et al., 2009, Nat Genet. 41(6): 666-76. 2.Li F. et al., 2011, Nat Struct Mol Biol. 18 (8): 941-6. 3.Amin N. et al., 2012, Mol Psychiatry. 17 (11): 1116-29.