Recombinant Human CUTC/CGI-32 Protein (His Tag)

Catalog Number:PKSH031114

Note: Centrifuge before opening to ensure complete recovery of vial contents.

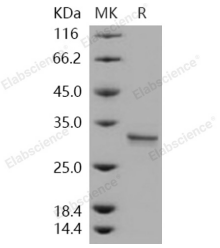
Description

Synonyms	CGI-32
Species	Human
Expression Host	E.coli
Sequence	Met 1-Val 273
Accession	Q9NTM9
Calculated Molecular Weight	31.0 kDa
Observed molecular weight	31 kDa
Tag	N-His

Properties

Purity	> 92 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, 10% glycerol, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 92 % as determined by reducing SDS-PAGE.

Background

Copper homeostasis protein cutC homolog, also known as CGI-32 and CUTC, is a cytoplasm and nucleus protein which belongs to theCutC family. CUTC may play a role in copper homeostasis. It can bind one Cu1+per subunit. Copper is an essential trace element to life and particularly plays a pivotal role in the physiology of aerobic organisms. Copper is a micronutrient that is required for proper metabolic functioning of most prokaryotic and eukaryotic organisms. To sustain an adequate supply of copper, a cell requires molecular mechanisms that control the metal content to avoid copper toxicity. This toxicity comes primarily from the reactivity of copper, which can lead to the generation of free radicals. In bacteria, two independent systems are responsible for maintaining the balance of copper within the cells (Cop and Cut family proteins). The Cut protein family is associated with copper homeostasis and involved in uptake, storage, delivery,

and efflux of copper. CutC is a member of the Cut family and is suggested to be involved in efflux trafficking of cuprous ion. CutC is able to respond transcriptionally to copper and to participate in the control of copper homeostasis in E. faecalis.