Data Sheet (Cat.No.TMPY-03106)

TargetMol

CCDC47 Protein, Human, Recombinant (His)

General Information

Synonyms:	GK001;MSTP041;coiled-coil domain containing 47
Protein Construction:	A DNA sequence encoding the human CCDC47 (Q96A33-1) (Met1-Ser135) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Lys 21
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96A33-1
Molecular Weight:	14.7 kDa (predicted); 22 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:	> 95 % 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 PBS, 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

CCDC47 gene is expressed at high level. The gene contains 16 distinct gt-ag introns. Transcription produces 9 different mRNAs, 6 alternatively spliced variants and 3 unspliced forms. There are 3 probable alternative promotors, 3 non overlapping alternative last exons and 8 validated alternative polyadenylation sites. The mRNAs appear to differ by truncation of the 5' end, truncation of the 3' end, presence or absence of a cassette exon, overlapping exons with different boundaries. Functionally, CCDC47 gene has been proposed to participate in

processes such as calcium ion homeostasis, embryo development, ER overload response and post-embryonic development. CCDC47 are expected to have molecular function (calcium ion binding) and to localize in various compartments (membrane, endoplasmic reticulum, integral to membrane, microsome).

Reference

Danielsen JM, et al. (2011) Mass spectrometric analysis of lysine ubiquitylation reveals promiscuity at site level. Mol Cell Proteomics. 10(3):M110.003590.

Rual JF, et al. (2005) Towards a proteome-scale map of the human protein-protein interaction network. Nature. 437(7062):1173-8.

Kamatani Y, et al. (2010) Genome-wide association study of hematological and biochemical traits in a Japanese population. Nat Genet. 42(3):210-5.