

## CNPY2 Protein, Human, Recombinant (His)

### General Information

Synonyms:	canopy FGF signaling regulator 2;HP10390;ZSIG9;MSAP;TMEM4
Protein Construction:	A DNA sequence encoding the human CNPY2 (Q9Y2B0-1) (Met1-Ser178) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Arg 21
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9Y2B0-1
Molecular Weight:	20 kDa (predicted); 20 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

CNPY2 is a novel MIR-interacting protein that enhances neurite outgrowth and increases myosin regulatory light chain. CNPY2 enhances migration of C6 glioma cells through phosphorylation of the myosin regulatory light chain. It is expressed in different tissues, including brain. Overexpression of CNPY2 enhanced the motility of glioma cells measured in matrigel invasion chambers and using a scratch assay. Downregulation of CNPY2 by RNA interference significantly decreased glioma cell migration and phosphorylation of MRLC. Inhibition of the corresponding MRLC

kinase by ML-7 did not affect migration of CNPY2-overexpressing cells.

#### Reference

Trynka G, et al. (2009) Coeliac disease-associated risk variants in TNFAIP3 and REL implicate altered NF-kappaB signalling. *Gut*. 58(8):1078-83.

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

Kim W, et al. (2011) Systematic and quantitative assessment of the ubiquitin-modified proteome. *Mol Cell*. 44(2): 325-40.

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