Data Sheet (Cat.No.TMPY-03792)

CHN1 Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	NC;chimerin 1;ARHGAP2;RHOGAP2;DURS2;CHN
Protein Construction:	A DNA sequence encoding the human CHN1 (NP_001813.1) (Ala2-Phe459) 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:	P15882-1
Molecular Weight:	80.9 kDa (predicted); 65 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

CHN1, also known as chimerin 1, is a TPase-activating protein for ras-related p21-rac and a phorbol ester receptor. It is predominantly expressed in neurons, and plays an important role in neuronal signal-transduction mechanisms. CHN1 is involved in the assembly of neuronal locomotor circuits as a direct effector of EPHA4 in axon guidance. The CHN1 gene provides instructions for making two very similar proteins called α1-chimaerin and α2-chimaerin. These proteins play an important role in the early development of the nervous system. In particular,

they help regulate complex chemical signaling pathways during the formation and development of nerve cells (neurons). These proteins help guide the growth of axons and dendrites, which are specialized extensions of neurons that transmit and receive nerve impulses throughout the nervous system.

Reference

Miyake N. et al, 2010, Am J Med Genet A. 152 (1): 215-7.
Miyake N. et al., 2011, Invest Ophthalmol Vis Sci. 52 (9): 6321-8.
Volk AE. et al., 2010, Graefes Arch Clin Exp Ophthalmol. 248 (9): 1351-7.

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