Data Sheet (Cat.No.TMPC-00241)

TargetMol

DPYSL2 Protein, Human, Recombinant (GST)

General Information

Protein Construction:	Recombinant full length human DPYSL2 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species:	Human
Expression Host:	Baculovirus-Insect Cells
Accession:	Q16555
Molecular Weight:	~89 kDa

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it.
Purity:	>90% as determined by SDS-PAGE.
Formulation:	Supplied as sterile 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol.

Preparation and Storage

Stability & Storage:

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:

Enzymes are highly recommended to be shipped at frozen temperature with dry ice. Shipment made at ambient temperature may seriously affect the activity of the ordered products.

Protein Background

The DPYSL2 gene at 8p22-p21 is expressed widely in neuronal tissues. Collapsin response mediator protein-2 (DPYSL2 or CRMP2) is a multifunctional adaptor protein within the central nervous system. In the developing brain or cell cultures, CRMP2 performs structural and regulatory functions related to cytoskeletal dynamics, vesicle trafficking, and synaptic physiology. DPYSL2 is crucial for neuronal development. The homotetrameric CRMP2 complex is regulated via two mechanisms: first by phosphorylation and second by the reduction and oxidation of the Cys504 residues of two adjacent subunits. CRMP2 has been associated with several neuropathologic or psychiatric conditions including Alzheimer's disease (AD) and schizophrenia, either at the level of genetic polymorphisms; protein expression; post-translational modifications; or protein/protein interactions. Reduced transcription and mTOR-regulated translation of certain DPYSL2 isoforms increase the risk for schizophrenia.

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