Data Sheet (Cat.No.TMPY-03332)

TargetMol

PRTFDC1 Protein, Human, Recombinant (His)

General Information

Synonyms:	HHGP;PRTFDC1;phosphoribosyl transferase domain containing 1
Protein Construction:	A DNA sequence encoding the mature form of human PRTFDC1 (Q9NRG1-1) (Met1-Val225) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	Q9NRG1-1
Molecular Weight:	27.5 kDa (predicted); 19 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:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 10% glycerol, pH 8.0.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

PRTFDC1 is a member of the purine/pyrimidine phosphoribosyltransferase family. It can bind GMP, IMP and alpha-D-5-phosphoribosyl 1-pyrophosphate (PRPP). The epigenetic silencing of PRTFDC1 by hypermethylation of the CpG island leads to a loss of PRTFDC1 function, which might be involved in squamous cell oral carcinogenesis. PRTFDC1 is a genetic modifier of HPRT-deficiency in the mouse and has important implications for unraveling the molecular etiology of lesch-Nyhan disease(LND). LND is a severe X-linked neurological disorder caused by a deficiency of

hypoxanthine phosphoribosyltransferase. PRTFDC1 has a low, barely measurable phosphoribosyltransferase activity (in vitro).

Reference

Welin M. et al., 2010, FEBS J. 277 (23): 4920-30.
Keebaugh AC. et al., 2011, PLoS One. 6 (7): e22381.
Suzuki E. et al., 2007, Oncogene. 26 (57): 7921-32.