Data Sheet (Cat.No.TMPY-01383)

TargetMol

PRMT6 Protein, Human, Recombinant (His & Flag)

General Information

Synonyms:	protein arginine methyltransferase 6;HRMT1L6
Protein Construction:	A DNA sequence encoding the human PRMT6 (NP_060607.2) (Met 1-Asp 375) was expressed, fused with a polyhistidine tag at the C-terminus and the flag tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96LA8-1
Molecular Weight:	44.4 kDa (predicted); 43-46 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 7.5. 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

Protein arginine N-methyltransferase 6, also known as Histone-arginine N-methyltransferase PRMT6, PRMT6, and HRMT1L6, is a member of the protein arginine N-methyltransferase family and PRMT6 subfamily. PRMT6 is highly expressed in kidney and testes. PRMT6 is known to catalyze the generation of asymmetric dimethylarginine in polypeptides. It has been implicated in human immunodeficiency virus pathogenesis, DNA repair, and

transcriptional regulation. PRMT6 is known to methylate histone H3 Arg-2 (H3R2), and this negatively regulates the lysine methylation of H3K4 resulting in gene repression. PRMT6 plays a key role in coupling process by functioning as a transcriptional coactivator that can regulate alternative splicing. PRMT6 coactivates the progesterone, glucocorticoid and oestrogen receptors in luciferase reporter assays in a hormone-dependent manner. Small interfering RNA (siRNA) oligonucleotide duplex knockdown of PRMT6 disrupts oestrogen-stimulated transcription of endogenous GREB1 and progesterone receptor in MCF-7 breast cancer cells. Neutralizing the activity of PRMT6 could inhibit tumor progression and may be of cancer therapeutic significance.

Reference

Hyllus D, et al., 2007, Genes Dev. 21(24): 3369-80.
Lakowski, TM. et al., 2008, J Biol Chem. 283 (15): 10015-25.
Michaud-Levesque, J. et al., 2009, J Biol Chem. 284 (32): 21338-46.
Harrison, MJ. et al., 2010, Nucleic acids Res. Jan 4.