

## PRMT3 Protein, Human, Recombinant (GST)

### General Information

Synonyms:	HRMT1L3;protein arginine methyltransferase 3
Protein Construction:	A DNA sequence encoding the human PRMT3 (NP_005779.1) (Cys 2-Gln 531) was fused with the GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	O60678-1
Molecular Weight:	85.7 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:	> 65 % 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 20 mM Tris, 150 mM NaCl, 0.5 mM GSH, pH 7.0. 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

Protein arginine methyltransferase 3, also known as PRMT3, is one of four type I protein arginine methyltransferases (PRMT) that in humans is encoded by the PRMT3 gene. Methylation of arginine residues is a widespread post-translational modification of proteins catalyzed by a small family of PRMTs. The modification appears to regulate protein functions and interactions that affect gene regulation, signalling and subcellular localization of proteins and nucleic acids. In human cells, the PRMT family consists of eight canonical members.

PRMTs have been classified into two groups based on the end product. Certain PRMTs display different subcellular localization in different cell types, implicating cell- and tissue-specific mechanisms for regulating PRMT functions. PRMT3 is unique in that its N-terminus harbours a C2H2 zinc-finger domain that is proposed to confer substrate specificity. Besides, PRMT3 is the only type I enzyme that is restricted to the cytoplasm. A large proportion of this cytosolic PRMT3 is found associated with ribosomes. It is tethered to the ribosomes through its interaction with rpS2, which is also its substrate.

### Reference

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