LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human PRMT3 Protein
Catalog Number: hRP-0504
Manufacturer: LD Biopharma, Inc.

Introduction

Protein post-translational modification, such as arginine methylation not only plays a major role in epigenomic regulation, such as histone and transcription factor modification, but also regulates many RNA binding proteins functions. There are at least eight type I protein arginine N-methyltransferases (PRMTs) were identified from human genome. Human PRMT3 (protein arginine N-methyltransferase 3), as a member of PRMT protein family, catalyze the formation of asymmetric N(G), N(G)-dimethylarginine (ADMA) residues in proteins.

Full-length recombinant human PRMT3 cDNA (465aa, derived from BC001878, isoform 1) was constructed with codon optimization with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein was expressed in E. coli as inclusion bodies, refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	PRMT3 (HRMT1L3)
Accession Number:	NP_005779.1
Species:	Human
Size:	50 µg / Vial
Composition:	0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Kolbel,K., et al., *Type I Arginine Methyltransferases PRMT1 and PRMT-3 Act*

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Distributively. J. Biol. Chem. 284 (13), 8274-8282 (2009)

Tavanez,J.P., et al., *Hsp70 chaperones and type I PRMTs are sequestered at intranuclear inclusions caused by polyalanine expansions in PABPN1*. PLoS ONE 4 (7), E6418 (2009)

Singh,V., et al., *DAL-1/4.1B tumor suppressor interacts with protein arginine N-methyltransferase 3 (PRMT3) and inhibits its ability to methylate substrates in vitro and in vivo.* Oncogene 23 (47), 7761-7771 (2004)

Applications

1. May be used for in vitro human PRMT3 functional regulations using protein mediated intracellular dilivery study.
2. May be used for specific substrate protein for kinase and ubiquitin related enzyme functional screening assays.
3. May be used as antigen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHGNLYFQG^GEFCSLASGATGGRGAVENEEDLPELSDSGDEAAWED
EDDADLPHGKQQTPCLFCNRLFTSAEETFSHCKSEHQFNIDSMVHKHGLEFYGYIKLINFIRLK
NPTVEYMNSIYNPVPWEKEEYLKPVLEDDLLLQFDVEDLYEPVSVPFSYPNGLSENTSVVEKLK
HMEARALSAEAALARAREDLQKMKQFAQDFVMHTDVRTCSSSTSVIADLQEDEDGVYFSSYGHY
GIHEEMLKDKIRTESYRDFIYQNPHIFKDKVVLDVGCGTGILSMFAAKAGAKKVLGVDQSEILY
QAMDIIRLNKLEDTITLIKGKIEEVHLPVEKVDVIISEWMGYFLLFESMLDSVLYAKNKYLAKG
GSVYPDICTISLVAVSDVNKHADRIAFWDDVYGFKMSCMKKAVIPEAVVEVLDPKTLISEPCGI
KHIDCHTTSISDLEFSSDFTLKITRTSMCTAIAGYFDIYFEKNCHNRVVFSTGPQSTKTHWKQT
VFLLEKPFSVKAGEALKGKVTVHKNKKDPRSLTVTLTLNNSTQTYGLQ