



# SET7/9 Protein Crystal

Catalog: CBCRY57

## PRODUCT INFORMATION

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| <b>Name</b>                      | SET7/9 Protein Crystal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cat No.</b>                   | CBCRY57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Fragment</b>                  | Residues 70-366                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Description</b>       | SET Domain Containing (Lysine Methyltransferase) 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Background</b>                | <p>Histone-lysine N-methyltransferase SETD7 belongs to histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. It plays a central role in the transcriptional activation of genes such as collagenase or insulin. It can be recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription. SETD7 has also methyltransferase activity toward non-histone proteins such as p53/TP53, TAF10, Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation.</p> |
| <b>Protein Classification</b>    | Transferase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Structure Weight</b>          | 33421.14 Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Method</b>                    | X-Ray Diffraction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Resolution</b>                | 2.30 Å                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ligand Chemical Component</b> | S-ADENOSYLMETHIONINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Reference</b>                 | Kwon T, Chang JH, Kwak E, Lee CW, Joachimiak A, Kim YC, Lee J, Cho Y. Mechanism of histone lysine methylation transfer revealed by the structure of set7/9-adenomethyltransferase. <i>Embo J.</i> (2003) 22 p.292                                                                                                                                                                                                                                                                                                                                                                                                                                                |