



# IDI1 Protein Crystal

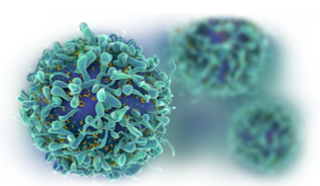
Catalog: CBCRY10

## PRODUCT INFORMATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                      | IDI1 Protein Crystal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cat No.                   | CBCRY10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Fragment                  | Full length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Protein Description       | Isopentenyl-diphosphate delta-isomerase 1                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Background                | IDI1 encodes a peroxisomally-localized enzyme that catalyzes the interconversion of isopentenyl diphosphate (IPP) to its highly electrophilic isomer, dimethylallyl diphosphate (DMAPP), which are the substrates for the successive reaction that results in the synthesis of farnesyl diphosphate and, ultimately, cholesterol. It has been shown in peroxisomal deficiency diseases such as Zellweger syndrome and neonatal adrenoleukodystrophy that there is reduction in IPP isomerase activity. |
| Protein Classification    | Isomerase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Structure Weight          | 56107.39 Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Method                    | X-Ray Diffraction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Resolution                | 2.00 Å                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Ligand Chemical Component | Acetic acid; Aminoethanolpyrophosphate; Magnesium ion; Manganese ion                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Reference                 | Zhang, C., Liu, L., Xu, H., Wei, Z., Wang, Y., Lin, Y., Gong, W. (2007) Crystal structures of human IPP isomerase: new insights into the catalytic mechanism J.Mol.Biol. 366: 1437-1446                                                                                                                                                                                                                                                                                                                |

## USAGE GUIDELINES

|         |                                                                                                                             |
|---------|-----------------------------------------------------------------------------------------------------------------------------|
| General | Avoid excessive mixing or shocking to prevent aggregation. Long term storage above -80°C may result in aggregate formation. |
| Storage | Short term: +2°C to +8°C<br>Long term: -80°C                                                                                |

**Stability**

n.a.

**Freezing**

Can be frozen, but avoid multiple freeze/thaw cycles.