

Isopentenyl-diphosphate delta-isomerase 1

Cat. No. CBCRY10 Lot. No. (See product label)

SPECIFICATION

| | |
|-------------------------------|--|
| Source | E.coli |
| 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 |
| Polymer | 1 |
| Molecule | Isopentenyl-diphosphate delta-isomerase 1 |
| Chain Length | 255 amino acids |
| PDB ID | 2I6K |
| MMDB ID | 46256 |
| Method | X-Ray Diffraction |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

| | |
|----------------------------------|---|
| Resolution | 2.00? |
| 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 <i>J.Mol.Biol.</i> 366: 1437-1446 |

GENE INFORMATION

| | |
|----------------------------|--|
| Gene Name | IDI1 |
| Synonyms | IPP1; IPPI1; EC 5.5.5.2; IPP isomerase; IPP isomerase; OTTHUMP00000018951; isopentenyl diphosphate dimethylallyl diphosphate isomerase 1; isopentenyl pyrophosphate isomerase 1; isopentenyl-diphosphate delta isomerase |
| UniProt ID | Q13907 |
| Gene ID | 3422 |
| Chromosome Location | 10p15.3 |
| Function | magnesium ion binding; isopentenyl-diphosphate delta-isomerase activity; hydrolase activity; isomerase activity; metal ion binding |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA