Recombinant IDI2 protein (His tag)

Catalog Number	543533
Synonyms	Isopentenyl pyrophosphate isomerase 2; IPP isomerase 2; IPPI2
Species	Human
Expression System	E. coli
Accession	Q9BXS1
Molecular Weight	Predictes a molecular mass of 28.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	1-227
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-227 aa (Q9BXS1) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Isopentenyl-diphosphate delta-isomerase 2 (IDI2) fragment (amino acids 1-227), encompassing the complete Nudix hydrolase domain. This high-purity protein is an essential tool for investigating the enzyme's role in catalyzing the isomerization of isopentenyl diphosphate (IPP) to dimethylallyl diphosphate (DMAPP), a critical step in isoprenoid biosynthesis. Isopentenyl-diphosphate delta-isomerase 2 (IDI2) is a human enzyme that catalyzes the 1,3-allylic rearrangement of isopentenyl diphosphate (IPP) to dimethylallyl diphosphate (DMAPP), generating a highly electrophilic allylic isomer essential for isoprenoid biosynthesis. This reaction is fundamental to the production of diverse isoprenoid compounds, including sterols, dolichols, and ubiquinones, which play vital roles in cellular processes such as membrane integrity, protein glycosylation, and electron transport. The enzyme is localized to peroxisomes, indicating its involvement in organelle-specific metabolic pathways. The recombinant fragment (1-227) includes the complete Nudix hydrolase domain, enabling focused studies on the structural and functional properties of this catalytic region.