Stereospecificity of the hydride transfer reaction catalyzed by isopropylmalate dehydrogenase of thermophilic bacteria thermus thermophilus

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Stereospecificity of the Hydride Transfer Reaction Catalyzed by Isopropylmalate Dehydrogenase of Thermophilic Bacteria

*Thermus thermophilus*

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In the leucine biosynthesis, *threo*-D-3-isopropylmalate dehydrogenase (IPMDH) is responsible for the conversion of isopropylmalate (IPM) to 2-oxoisocaproic acid. NMR studies on the NAD-dependent reaction catalyzed by IPMDH from *T. thermophilus* HB 8 revealed that *pro R* specific (A specific) hydride transfer from the substrate to the nicotinamide ring is involved during the said oxido-reduction.

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