

Enzyme Data

BCC-Nr.	102
Enzyme	Alcohol Dehydrogenase – S1
EC-No.	1.1.1.1
T _{opt}	
pH _{opt}	8.0
Stability	Stable at -20 °C
KM (mM)	0.099 isopropanol, 0.14 NAD ⁺
Activity and substrate specificity	High activity to α -diketones, shortchain aliphatic ketones and aliphatic keto acid esters
Application	Synthesis of enantiomerically pure alcohols with S-configuration
Commentary	Besides isopropanol also other secondary alcohols like butan-2-ol, pentan-2-ol, pentan-3-ol, hexan-2-ol, cyclobutanol, cyclopentanol, and cyclohexanol served as substrate and were oxidized to the corresponding ketones. Primary alcohols are not oxidized by the enzyme. The enzyme is inactivated by mercaptide-forming reagents and chelating agents, 2-mercaptoethanol is an inhibitor
Formulation	In glycerol or lyophilized