

There is a possibility of changing the 'Code' and/or 'Lot No.'

'Protein conc.' and 'Activity' might vary between lots.

#### Data sheet

Enzyme	;	<b>Secondary alcohol dehydrogenase B</b>
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Code ; SAD-75-02

Lot No. ; 1-I101

Protein conc. ; 23 mg/ml

Volume ; ml

Form ; 50 mM Tris-HCl (pH 8.0)

Storage ; -20 °C

Activity ; 133 U/ml

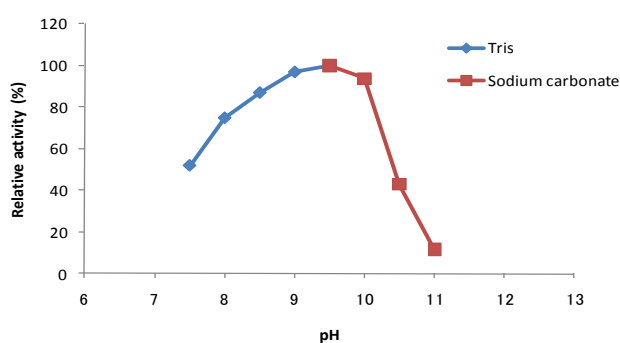
Notes ; For research use only.

#### Activity measurement

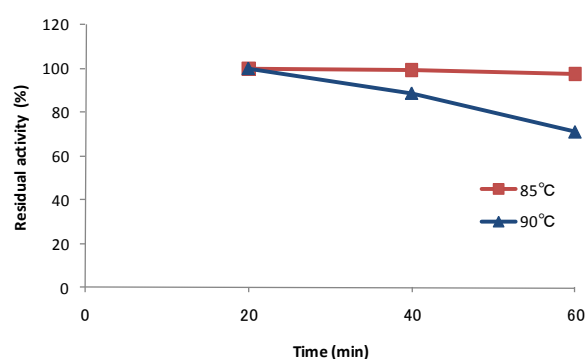
Reaction mix (50 mM Sodium carbonate buffer (pH 9.5), 500 mM (R)-1,3-Butanediol, 0.5 mM NAD<sup>+</sup> and appropriate amount of the enzyme) was incubated at 50 °C and A<sub>340</sub> was monitored.

One unit is defined as the amount of enzyme reducing 1 μmol of NAD<sup>+</sup> per minute using  $\epsilon_{340}=6.22 \text{ mM}^{-1} \text{ cm}^{-1}$ .

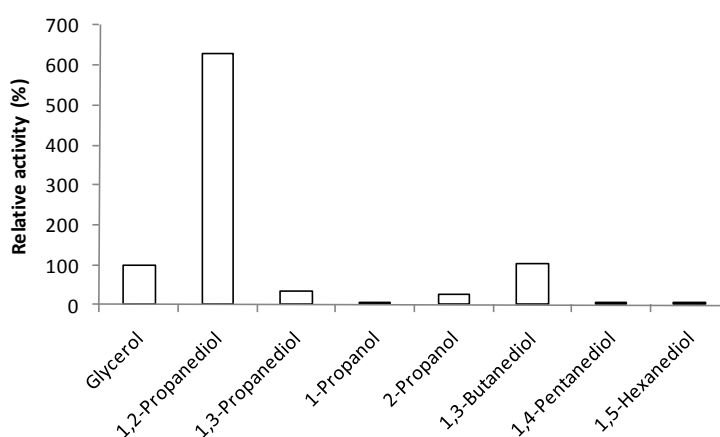
#### pH profile



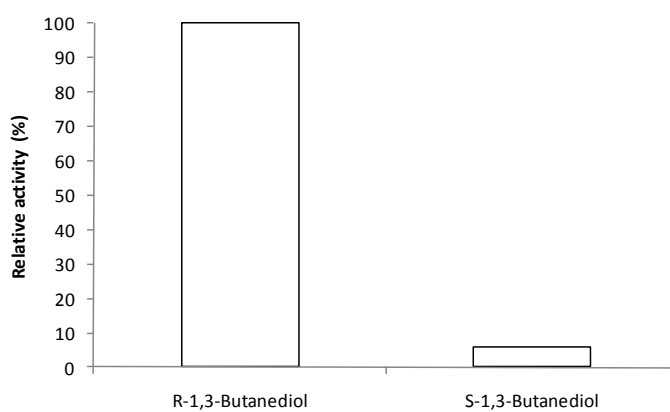
#### Thermostability



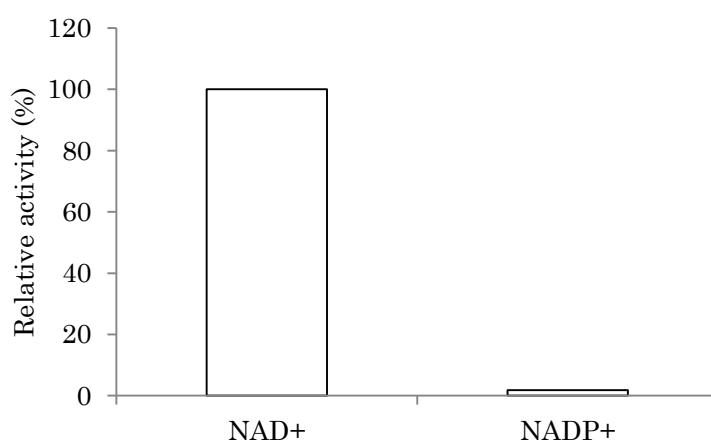
#### Substrate specificity



### Chiral specificity



### Co-enzyme specificity



### Kinetic parameters

$K_m$  for (R)-1,3-Butanediol : 1.8 mM

$K_m$  for Glycerol : 3.2 mM

$K_m$  for 1,2-Propanediol : 0.34mM

$K_m$  for NAD<sup>+</sup> : 0.14 mM