

# ENZYME : EC 1.1.1.4

## Abstract

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(<https://www.ncbi.nlm.nih.gov/pubmed>)



(<http://prosite.expasy.org/>)



(<http://www.uniprot.org>)



(<http://www.kegg.jp/>)

**accepted\_name** : (R,R)-butanediol dehydrogenase  
**o\_name**: (R)-2,3-butanediol dehydrogenase.(R)-diacetyl reductase.1-amino-2-propanol dehydrogenase.1-amino-2-propanol oxidoreductase.2,3-butanediol dehydrogenase.Aminopropanol oxidoreductase.Butylene glycol dehydrogenase.Butyleneglycol dehydrogenase.D-(-)-butanediol dehydrogenase.D-1-amino-2-propanol dehydrogenase.D-1-amino-2-propanol:NAD(2) oxidoreductase.D-aminopropanol dehydrogenase.D-butanediol dehydrogenase.Diacetyl (acetoin) reductase.  
**synonym**: (R)-2,3-butanediol dehydrogenase, (R)-diacetyl reductase, 1-amino-2-propanol dehydrogenase, 1-amino-2-propanol oxidoreductase, 2,3-butanediol dehydrogenase, D-(-)-butanediol dehydrogenase, D-1-amino-2-propanol dehydrogenase, D-1-amino-2-propanol:NAD(2) oxidoreductase, D-aminopropanol dehydrogenase, D-butanediol dehydrogenase, Aminopropanol oxidoreductase, Butylene glycol dehydrogenase, Butyleneglycol dehydrogenase, Diacetyl (acetoin) reductase,

**Reaction** : (R,R)-butane-2,3-diol + NAD(+) = (R)-acetoin + NADH.

**Comments** : Also converts diacetyl into acetoin with NADH as reductant.

## History

EC 1.1.1.4 created 1961 (EC 1.1.1.74 created 1972, incorporated 1976)

## Publications

Title	Authors	First_page	Last_page	volume	year	pubmed
Bacterial butylene glycol dehydrogenase and diacetyl reductase.	Strecker, H.J. and Harary, I.	263	270	211	1975	
Stereoisomeric specificities of 2,3-butanediol dehydrogenase.	Taylor, M.B. and Juni, E.	448	457	39	1977	

## Protein Family (PROSITE)

Nothing in the Database

## Protein Sequence (SP)

Organism	Chain	Name	Key
BACSU	BDHA	BDHA_BACSU	O34788 ( <a href="http://www.uniprot.org/uniprot/O34788">http://www.uniprot.org/uniprot/O34788</a> )
YEAST	BDH1	BDH1_YEAST	P39714 ( <a href="http://www.uniprot.org/uniprot/P39714">http://www.uniprot.org/uniprot/P39714</a> )