

A

EC 1.1.1.125

Common name : 2-deoxy-D-gluconate 3-dehydrogenase
Systematic name : 2-deoxy-D-gluconate:NAD⁺ 3-oxidoreductase
Other names : 2-deoxygluconate dehydrogenase
Reaction : 2-deoxy-D-gluconate + NAD⁺ = 3-dehydro-2-deoxy-D-gluconate + NADH + H⁺
References : 1. Eichhorn, M.M. and Cynkin, M.A. Microbial metabolism of 2-deoxyglucose; 2-deoxyglucose acid dehydrogenase. Biochemistry 4 (1965) 159-165.
Created : EC 1.1.1.125 created 1972
KEGG MAP : [00040 Pentose and glucuronate interconversions](#)
BRENDA organisms : Aspergillus fumigatus
Bacillus halodurans
Bacillus subtilis

Yersinia pseudotuberculosis
Prosite : [PDOC00060](#)
Swiss-Prot : 3 protein sequences in Swiss-Prot

[\[P37769, KDUD_ECOLI_\]](#) [\[P50842, KDUD_BACSU_\]](#) [\[Q05528, KDUD_DICD3_\]](#)

TrEMBL : 39 protein sequences in TrEMBL

[Q1J7L8](#) [Q1JCS0](#) [Q1JHT9](#) [Q1JMP6](#) [Q1NEJ6](#) [Q1R7H0](#) [Q1WRA1](#) [Q2B7P5](#) [Q2CAL6](#)
[Q2K140](#) [Q2YIZ9](#) [Q3BZC9](#) [Q3JHK2](#) [Q3JT32](#) [Q4V1C0](#) [Q5DYS9](#) [Q5WJ75](#) [Q5WJ78](#)
[Q5WJC3](#) [Q62AB7](#) [Q667B0](#) [Q669X5](#) [Q6D4I9](#) [Q6MY53](#) [Q6W2B4](#) [Q746L6](#) [Q82UC5](#)
[Q89VG3](#) [Q8EMM8](#) [Q8FE98](#) [Q8KHI5](#) [Q8YD61](#) [Q8YIP8](#) [Q8YIP9](#) [Q8ZFH9](#) [Q8ZHQ1](#)
[Q8ZM99](#) [Q92V10](#) [Q9KAW9](#)

B

EC 1.1.1.126 is Orphan !

Common name : 2-dehydro-3-deoxy-D-gluconate 6-dehydrogenase
Systematic name : 2-dehydro-3-deoxy-D-gluconate:NADP⁺ 6-oxidoreductase
Other names : 2-keto-3-deoxy-D-gluconate dehydrogenase
2-keto-3-deoxygluconate dehydrogenase
Reaction : 2-dehydro-3-deoxy-D-gluconate + NADP⁺ = (4S,5S)-4,5-dihydroxy-2,6-dioxohexanoate + NADPH + H⁺
References : 1. Preiss, J. and Ashwell, G. Alginic acid metabolism in bacteria. II. The enzymatic reduction of 4-deoxy-L-erythro-5-hexoseulose uronic acid to 2-keto-3-deoxy-D-gluconic acid. J. Biol. Chem. 237 (1962) 317-321.
Created : EC 1.1.1.126 created 1972
BRENDA organisms : Pseudomonas sp.
Swiss-Prot : No protein sequences are associated with EC 1.1.1.126 in Swiss-Prot
TrEMBL : No protein sequences are associated with EC 1.1.1.126 in TrEMBL