D-Xylulose Reductase

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Recent Publications on D-Xylulose Reductase:

- Factors affecting the production of L-xylulose by resting cells of recombinant Escherichia coli.
  *Factors affecting the production of the rare sugar L-xylulose from xylitol...*7th November, 2009
  Department of Biotechnology and Chemical Technology, Helsinki University- J Ind Microbiol Biotechnol. 2009 Oct;36(10):1323-30. Epub 2009 Jul 15. (DOI Direct Link)
- Carbon fluxes of xylose-consuming Saccharomyces cerevisiae strains are affected differently by NADH and NADPH usage in HMF reduction.
  *Industrial Saccharomyces cerevisiae strains able to utilize xylose have...*6th November, 2009
  Department of Applied Microbiology, Lund University, P.O. Box 124, S-221- Appl Microbiol Biotechnol. 2009 Sep;84(4):751-61. Epub 2009 Jun 9. (DOI Direct Link)
- Yeast metabolic engineering for hemicellulosic ethanol production.
  *Efficient fermentation of hemicellulosic sugars is critical for the...*23rd September, 2009
  Department of Bacteriology, University of Wisconsin-Madison, Madison, WI- Curr Opin Biotechnol. 2009 Jun;20(3):300-6. Epub 2009 Jun 21. (DOI Direct Link)
- A single amino acid change (Y318F) in the L-arabitol dehydrogenase (LadA) from Aspergillus niger results in a significant increase in affinity for D-sorbitol.
  *BACKGROUND: L-arabitol dehydrogenase (LAD) and xylitol dehydrogenase (XDH)...*15th September, 2009
  Department of Crystal and Structural Chemistry, Utrecht University,- BMC Microbiol. 2009 Aug 12;9:166. (DOI Direct Link)
- [Metabolic engineering for improving ethanol fermentation of xylose by wild yeast]
  *One yeast strain, which was isolated from 256 natural samples, was found...*9th September, 2009
  Key Laboratory of Industrial Biotechnology of Ministry of Education,- Sheng Wu Gong Cheng Xue Bao. 2008 Jun;24(6):950-6.
- Engineering of a matched pair of xylose reductase and xylitol dehydrogenase for xylose fermentation by Saccharomyces cerevisiae.
  *Metabolic engineering of Saccharomyces cerevisiae for xylose fermentation...*8th September, 2009
  Institute of Biotechnology and Biochemical Engineering, Graz University of- Biotechnol J. 2009 May;4(5):684-94. (DOI Direct Link)
- Proteome analysis of the xylose-fermenting mutant yeast strain TMB 3400.
  *Xylose fermentation in yeast has been a target of research for years, yet...*12th August, 2009
  Department of Applied Microbiology, Lund University, PO Box 124, SE-22100- Yeast. 2009 Jul;26(7):371-82. (DOI Direct Link)

- Efficient bioethanol production by a recombinant flocculent Saccharomyces cerevisiae strain with a genome-integrated NADP+-dependent xylitol dehydrogenase gene.
  *The recombinant industrial Saccharomyces cerevisiae strain MA-R5 was...*16th June, 2009
  Biomass Technology Research Center, National Institute of Advanced- Appl Environ Microbiol. 2009 Jun;75(11):3818-22. Epub 2009 Mar 27. (DOI Direct Link)
- Impact of overexpressing NADH kinase on glucose and xylose metabolism in recombinant xylose-utilizing Saccharomyces cerevisiae.
  *During growth of Saccharomyces cerevisiae on glucose, the redox cofactors...*14th May, 2009
  Center for Microbial Biotechnology, Technical University of Denmark,- Appl Microbiol Biotechnol. 2009 Apr;82(5):909-19. Epub 2009 Feb 17. (DOI Direct Link)
- The behavior of key enzymes of xylose metabolism on the xylitol production by Candida guilliermondii grown in hemicellulosic hydrolysate.
  *A variety of raw materials have been used in fermentation process. This...*9th April, 2009
  Department of Biotechnology, Engineering School of Lorena, University of- J Ind Microbiol Biotechnol. 2009 Jan;36(1):87-93. Epub 2008 Oct 2. (DOI Direct Link)
- A new strategy to improve the efficiency and sustainability of Candida parapsilosis catalyzing deracemization of (R,S)-1-phenyl-1,2-ethanediol under non-growing conditions: increase of NADPH availability.
  *Microbial oxidoreductive systems have been widely used in asymmetric...*4th April, 2009
  Key Laboratory of Industrial Biotechnology of Ministry of Education and- J Microbiol Biotechnol. 2009 Jan;19(1):65-71.
- Bioethanol production performance of five recombinant strains of laboratory and industrial xylose-fermenting Saccharomyces cerevisiae.
  *In this study, five recombinant Saccharomyces cerevisiae strains were...*7th March, 2009
  Biomass Technology Research Center (BTRC), National Institute of Advanced- Bioresour Technol. 2009 Apr;100(8):2392-8. Epub 2009 Jan 6. (DOI Direct Link)
- Expression of protein engineered NADP+-dependent xylitol dehydrogenase increases ethanol production from xylose in recombinant Saccharomyces cerevisiae.
  *A recombinant Saccharomyces cerevisiae strain transformed with xylose...*17th December, 2008
  Biomass Technology Research Center, National Institute of Advanced- Appl Microbiol Biotechnol. 2008 Nov;81(2):243-55. Epub 2008 Aug 27. (DOI Direct Link)
- Efficient cloning system for construction of gene silencing vectors in Aspergillus niger.
  *An approach based on Gateway recombination technology to efficiently...*19th November, 2008
  Laboratory of Microbiology, Wageningen University, Wageningen, The- Appl Microbiol Biotechnol. 2008 Oct;80(5):917-24. Epub 2008 Aug 15. (DOI Direct Link)
- Effects of gene orientation and use of multiple promoters on the expression of XYL1 and XYL2 in Saccharomyces cerevisiae.
  *Orientation of adjacent genes has been reported to affect their expression...*28th October, 2008
  Molecular and Environmental Toxicology Center, University of Wisconsin,- Appl Biochem Biotechnol. 2008 Mar;145(1-3):69-78. Epub 2007 Oct 24. (DOI Direct Link)

D-Xylulose Reductase Patents:

- 7527951- Engineering fungi for the utilisation of L-arabinose

- 7052913- Matrices for drug delivery and methods for making and using the same
- 6395299- Matrices for drug delivery and methods for making and using the same
- 6340582- Process for preparing xylitol
- 5082770- Method for quantitative determination of polyamines

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