Title (en)

MIXED FEED RECOMBINANT YEAST FERMENTATION

Publication

EP 0436625 A4 19910821 (EN)

Application

EP 89911170 A 19890925

Priority

- US 24944688 A 19880926
- US 26544688 A 19881101
- US 31151789 A 19890213
- US 32396489 A 19890315

Abstract (en)

[origin: WO9003431A1] The invention provides a method of increasing the production of a recombinant gene product from a culture of a recombinant methylotrophic yeast host, wherein said product is made by expression from a recombinant gene sequence operably associated with a methanol-responsive expression control element. In the method of the invention, the methylotrophic yeast host is first cultured on a medium with a high concentration of multi-carbon, carbon-source nutriment, such as glycerol, but with little or no methanol, in order to increase the density of the host cells with little or no expression of the recombinant gene product. When the host cells have achieved a suitable density in the culture medium, the culture is subjected to a phase during which the concentration of multi-carbon, carbon-source nutriments is maintained sufficiently low that the methanol-responsive control element controlling expression of the recombinant gene encoding the desired product is derepressed. Finally, the culture is subjected to a phase of high production of the recombinant gene product by increasing the concentration of methanol while maintaining the concentration of multi-carbon, carbon-source nutriments at a low level. The invention is illustrated with production, using Pichia pastoris, of bovine lysozyme c2, human lysozyme, human epidermal growth factors (1-52) and (1-48), and human superoxide dismutase.

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C12N 5/00; C12N 15/00; C12P 21/00

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C12N 9/00 (2006.01); **C07K 14/485** (2006.01); **C12N 1/19** (2006.01); **C12N 9/02** (2006.01); **C12N 9/36** (2006.01); **C12N 15/81** (2006.01); **C12P 21/00** (2006.01); C12R 1/84 (2006.01)

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C07K 14/485 (2013.01); **C12N 9/0089** (2013.01); **C12N 9/2462** (2013.01); **C12N 15/815** (2013.01)

Citation (search report)

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DOCDB simple family (application)

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