

Title (en)

METHOD FOR SITE-SPECIFICALLY INCORPORATING UNNATURAL AMINO ACIDS INTO PROTEINS

Publication

**EP 0446299 A4 19920513 (EN)**

Application

**EP 90901230 A 19891115**

Priority

- US 27345588 A 19881118
- US 33760189 A 19890413

Abstract (en)

[origin: WO9005785A1] Novel methods are provided for producing proteins, containing unnatural amino acids at specific sites. The methods can utilize modified aminoacyl tRNA's capable of polymerizing a desired unnatural amino acid at unique codons within an mRNA sequence.

IPC 1-7

**C12P 19/34; C12P 21/02; C12N 15/01; C07H 21/02**

IPC 8 full level

**C12P 19/34** (2006.01); **A61K 47/48** (2006.01); **C07K 1/107** (2006.01); **C07K 14/00** (2006.01); **C12N 9/86** (2006.01); **C12N 15/10** (2006.01); **C12N 15/67** (2006.01); **C12P 21/02** (2006.01)

CPC (source: EP KR)

**A61K 47/68** (2017.07 - EP); **A61K 47/6835** (2017.07 - EP); **C07K 1/107** (2013.01 - EP); **C12N 9/86** (2013.01 - EP); **C12N 15/10** (2013.01 - EP); **C12N 15/67** (2013.01 - EP); **C12P 19/34** (2013.01 - KR); **C12P 21/02** (2013.01 - EP)

Citation (search report)

- [X] US 4568640 A 19860204 - RUBIN HARVEY [US]
- [Y] US 4687737 A 19870818 - SHARP PHILLIP A [US], et al
- BIOLOGICAL ABSTRACTS, Philadelphia, PA, US (155th Natl. Meeting of the American Ass. for the Advancement of Science (AAAS), San Francisco, CA (US), 14-19 January 1989); AN BR37:43786/
- [XP] BIOLOGICAL ABSTRACTS, abstract nr. BR37:43786, Philadelphia, PA, US; 155TH NATIONAL MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, San Francisco, California, 14th - 19th January 1989; AAAS PUBL. O (88-30), 1988, page 185; C.J. NOREN et al.: "A general method for site-specifically incorporating unnatural amino acids into proteins"
- [XP] SCIENCE, vol. 244, 14th April 1989, pages 182-244, AAAS, Washington, DC, US; C.J. NOREN et al.: "A general method for site-specific incorporation of unnatural amino acids into proteins"
- [XP] TIBS, vol. 14, no. 10, October 1989, pages 400-403, Elsevier Science Publishers, Cambridge, GB; S.J. ANTHONY-CAHILL et al.: "Site-specific mutagenesis with unnatural amino acids"
- [Y] ANAL. BIOCHEM., vol. 144, no. 1, January 1985, pages 132-141, Academic Press, Inc., NY, US; L.B. SHIH et al.: "A carbene-yielding amino acid for incorporation into peptide photoaffinity reagents"
- BIOCHEMISTRY, vol. 27, 1988; G. BALDINI et al., pp. 7951-7959/
- TETRAHEDRON, vol. 40, 1984; T.G. HECKLER et al., pp. 87-94/
- ACTA CHEMICA SCANDINAVICA B, vol. 37, 1983; J. HEIKKILA et al., pp. 857-864/

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

**WO 9005785 A1 19900531**; AU 4741290 A 19900612; AU 649217 B2 19940519; EP 0446299 A1 19910918; EP 0446299 A4 19920513; JP H04504651 A 19920820; KR 900702044 A 19901205

DOCDB simple family (application)

**US 8905256 W 19891115**; AU 4741290 A 19891115; EP 90901230 A 19891115; JP 50128490 A 19891115; KR 900701546 A 19900718