

Title (en)

CRYSTAL STRUCTURE OF A tRNA SYNTHETASE

Title (de)

KRISTALLSTRUKTUR EINER tRNA-SYNTETASE

Title (fr)

STRUCTURE CRISTALLINE D'UNE ARNT SYNTETASE

Publication

EP 2066789 A4 20091230 (EN)

Application

EP 07870156 A 20071001

Priority

- US 2007080128 W 20071001
- US 84854006 P 20060929

Abstract (en)

[origin: WO2008070257A2] The present invention relates to tRNA synthetases, and in particular the use of its crystal structure for drug discovery.

IPC 8 full level

C12N 9/00 (2006.01); **G06F 19/00** (2006.01); **G06G 7/48** (2006.01); **G06T 15/00** (2006.01)

CPC (source: EP)

C12N 9/93 (2013.01); **C07K 2299/00** (2013.01)

Citation (search report)

- [Y] WO 0109154 A2 20010208 - UNIV YALE [US], et al
- [XY] FUKUNAGA R ET AL: "Crystal Structure of Leucyl-tRNA Synthetase from the Archaeon Pyrococcus horikoshii Reveals a Novel Editing Domain Orientation", JOURNAL OF MOLECULAR BIOLOGY, LONDON, GB, vol. 346, no. 1, 11 February 2005 (2005-02-11), pages 57 - 71, XP004720636, ISSN: 0022-2836
- [XY] FUKUNAGA RYUJYA ET AL: "Crystallization of leucyl-tRNA synthetase complexed with tRNALeu from the archaeon Pyrococcus horikoshii", ACTA CRYSTALLOGRAPHICA. SECTION F: STRUCTURAL BIOLOGY AND CRYSTALLIZATION COMMUNICATIONS ONLINE, BLACKWELL MUNKSGAARD, COPENHAGEN, DK, vol. 61, no. 1, 1 January 2005 (2005-01-01), pages 30 - 32, XP009125709, ISSN: 1744-3091
- [Y] HSU JENNIFER L ET AL: "Functional divergence of a unique C-terminal domain of leucyl-tRNA synthetase to accommodate its splicing and aminoacylation roles", JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOCHEMICAL BIOLOGISTS, BIRMINGHAM, US, vol. 281, no. 32, 11 August 2006 (2006-08-11), pages 23075 - 23082, XP009125708, ISSN: 0021-9258
- [Y] LIU YUNQING ET AL: "Crystal structures of the editing domain of Escherichia coli leucyl-tRNA synthetase and its complexes with Met and Ile reveal a lock-and-key mechanism for amino acid discrimination.", BIOCHEMICAL JOURNAL, vol. 394, no. 2, 1 March 2006 (2006-03-01), pages 399 - 407, XP009125706
- [IP] ZHAI YUXIN ET AL: "Modulation of substrate specificity within the amino acid editing site of leucyl-tRNA synthetase", BIOCHEMISTRY, AMERICAN CHEMICAL SOCIETY, EASTON, PA.; US, vol. 46, no. 11, 20 March 2007 (2007-03-20), pages 3331 - 3337, XP009125707, ISSN: 0006-2960
- [XP] FERNANDO L ROCK ET AL: "An Antifungal Agent Inhibits an Aminoacyl-tRNA Synthetase by Trapping tRNA in the Editing Site", SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, US, WASHINGTON, DC, vol. 316, 22 June 2007 (2007-06-22), pages 1759 - 1761, XP007910488, ISSN: 0036-8075
- See references of WO 2008070257A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

WO 2008070257 A2 20080612; WO 2008070257 A3 20081002; WO 2008070257 A9 20080904; EP 2066789 A2 20090610;
EP 2066789 A4 20091230

DOCDB simple family (application)

US 2007080128 W 20071001; EP 07870156 A 20071001