

Title (en)

A CDNA CLONE ENCODING A HUMAN NOREPINEPRHINE TRANSPORTER.

Publication

**EP 0602044 A4 19941005 (EN)**

Application

**EP 92910856 A 19920220**

Priority

- US 9201376 W 19920220
- US 67698091 A 19910328

Abstract (en)

[origin: WO9217568A1] A cDNA encoding human norepinephrine transporter isolated from human neuroblastoma cells is disclosed. Determination of the nucleotide sequence thereof permitted a putative amino-acid sequence of the transporter protein to be determined. Mammalian cells transfected with the cDNA produced an mRNA species similar in size to that produced by norepinephrine-producing neurons. Such transfected cells also became capable of norepinephrine uptake. The uptake was inhibitable by various uptake-inhibiting drugs, including cocaine, to a degree similar to the effect of such drugs on noradrenergic neurons. The cloned cDNA makes possible well-controlled studies of transporter function in non-neuronal cells without the obfuscating influence of other transporters in the same cells. Such studies include the relative effects of various drugs such as antidepressants.

IPC 1-7

**C12N 15/12**

IPC 8 full level

**C12N 15/09** (2006.01); **C07K 14/435** (2006.01); **C07K 14/705** (2006.01); **C12N 5/00** (2006.01); **C12N 5/10** (2006.01); **C12N 15/12** (2006.01); **C12N 15/79** (2006.01); **C12P 21/02** (2006.01); **C12R 1/91** (2006.01)

IPC 8 main group level

**C07K** (2006.01)

CPC (source: EP)

**C07K 14/70571** (2013.01)

Citation (search report)

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- [A] COPPENEUR D;LINGEN B;SANDERS G;DABAUVALLE MC;BONISCH H;: "Expression of the neuronal noradrenaline transporter in *Xenopus laevis* oocytes.", NAUNYN-SCHMIEDEBERG'S ARCHIVES OF PHARMACOLOGY, vol. 343, no. 3, March 1991 (1991-03-01), SPRINGER-VERLAG, pages 334 - 336
- [A] BONISCH H;MARTINY-BARON G;BLUM B;MICHAEL-HEPP J;: "Biochemical characterization and purification of the neuronal sodium-dependent noradrenaline transporter.", J NEURAL TRANSM SUPPL, vol. 32, 1990, pages 413 - 419
- See references of WO 9217568A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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