

Title (en)

CYANOCOBALAMIN LOW VISCOSITY AQUEOUS FORMULATIONS FOR INTRANASAL DELIVERY

Title (de)

WÄSSRIGE CYANOCOBALAMINFORMULIERUNGEN MIT NIEDRIGER VISKOSITÄT FÜR DIE INTRANASALE VERABREICHUNG

Title (fr)

FORMULATIONS AQUEUSES DE FAIBLE VISCOSITÉ DE CYANOCOBALAMINE POUR ADMINISTRATION INTRA-NASALE

Publication

**EP 2035441 A4 20130116 (EN)**

Application

**EP 06785533 A 20060623**

Priority

US 2006024685 W 20060623

Abstract (en)

[origin: WO2007149098A1] A stable pharmaceutical aqueous solution of cyanocobalamin comprised of cyanocobalamin and water wherein said solution of cyanocobalamin is suitable for intranasal administration, has a viscosity less than about 1000 cPs, and yields a bioavailability of cyanocobalamin when administered intranasally of at least about 5% relative to an intramuscular injection of cyanocobalamin. The present invention is also directed towards a method for elevating the vitamin B 12 levels in the cerebral spinal fluid (CSF) comprising administering intranasally a sufficient amount of a cyanocobalamin solution so as to increase the average ratio of vitamin B 12 in the CSF to that in the blood serum (B12 CSF/ B12 Serum x 100) to at least about 1.1 comprising intranasally administering an aqueous solution of a cyanocobalamin, wherein said solution of cyanocobalamin has a bioavailability of at least 5% relative to an intramuscular injection of a cyanocobalamin.

IPC 8 full level

**A61K 9/08** (2006.01); **A61K 31/714** (2006.01); **A61K 47/10** (2006.01)

CPC (source: EP IL KR)

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Citation (search report)

- [XAI] WO 8605987 A1 19861023 - NASTECH PHARM CO [US]
- [XAI] US 5112804 A 19920512 - KOWARSKI HANNA R [US]
- [XAI] WO 0033810 A1 20000615 - BIOVECTOR THERAPEUTICS SA [FR], et al
- [IA] WO 9517164 A1 19950629 - MERKUS FRANCISCUS W H M [BE]
- See references of WO 2007149098A1

Citation (examination)

WO 2007022345 A2 20070222 - FLEMING AND COMPANY PHARMACEUT [US], et al

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