

Purchase

Export

Search ScienceDirect

Advanced search

Article outline

Abstract

Keywords

References

ADVERTISEMENT

EVENTS YOU MAY BE INTERESTED IN

[Pharmacodynamics, Biomarkers and Personalised Therapy](#)

29 Feb – 4 Mar 2016

Oxford, United Kingdom

[American Academy of Hospice and Palliative Medicine 2015 Annual Assembly](#)

9–12 Mar 2016

Chicago, United States

[Comprehensive GC Training \(SRI GC with PeakSimple\)](#)

13–14 Jul 2015

Milton Keynes, United Kingdom

[More events »](#)

Powered by GLOBALEVENTSLIST

Life Sciences

Volume 58, Issue 6, 5 January 1996, Pages PL103–PL110



Pharmacology letter accelerated communication

Arousal-enhancing properties of the CB1 cannabinoid receptor antagonist SR 141716A in rats as assessed by electroencephalographic spectral and sleep-waking cycle analysis

Vincent Santucci, Jean-jacques Storme, Philippe Soubrié, Gérard Le Fur

[Show more](#)

Choose an option to locate/access this article:

Check if you have access through your login credentials or your institution

[Check access](#)

Purchase \$35.95

[Get Full Text Elsewhere](#)

doi:10.1016/0024-3205(95)02319-4

[Get rights and content](#)

Abstract

The effects of the central (CB1) cannabinoid receptor antagonist SR 141716A on the sleep-waking cycle were investigated in freely-moving rats using time scoring and power spectral analysis of the electroencephalogram (EEG). Over a 4-hour recording period, SR 141716A (0.1, 0.3, 1, 3 and 10 mg/kg I.P.) dose-dependently increased the time spent in wakefulness at the expense of slow-wave sleep (SWS) and rapid eye movement sleep (REMS), delayed the occurrence of REMS but did not change the mean duration of REMS episodes. Moreover, the compound induced no change in motor behavior. At the efficient dose of 3 mg/kg I.P., SR 141716A reduced the spectral power of the EEG signals typical of SWS but did not affect those of wakefulness. Taken together, these results demonstrate that the EEG effects of SR 141716A reflect arousal-enhancing properties. In addition, the present study suggests that an endogenous cannabinoid-like system is involved in the control of the sleep-waking cycle.

Keywords

SR 141716A; cannabinoid receptor antagonist; electroencephalogram; sleep-waking cycle

Correspondence: Dr.V.Santucci, Neuropsychiatry Department, Sanofi Recherche, 371, rue du Professeur Joseph Blayac, 34184 Montpellier, Cedex 04. Tel: (33) 67 10 65 76- Fax: (33) 67 10 69 12.

Copyright © 1996 Published by Elsevier Inc.

[About ScienceDirect](#)[Terms and conditions](#)[Contact and support](#)[Privacy policy](#)

Copyright © 2015 Elsevier B.V. or its licensors or contributors. ScienceDirect® is a registered trademark of Elsevier B.V.

Cookies are used by this site. To decline or learn more, visit our [Cookies](#) page.[Switch to Mobile Site](#)

Recommended articles

[Potential role of the cannabinoid receptor cb1 in ra...](#)2003, Neuroscience [more](#)[Anandamide modulates sleep and memory in rats](#)

1998, Brain Research [more](#)

Cannabis and cannabinoid receptors

2000, Fitoterapia [more](#)

[View more articles »](#)

Citing articles (107)

Related book content
