Product Data Sheet

Product Name: Becampanel (AMP 397)
Cat. No.: GC33723

Chemical Properties

Cas. No.	188696-80-2		
SMILES	O=C1C(NC2=CC([N+]([O-])=O)=CC(CNCP(O)(O)=O)=C2N1)=O		
Formula	$C_{10}H_{11}N_4O_7P$	M.Wt	330.19
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Becampanel (AMP 397)		

Protocol

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Animal experiment:	The study protocol is in compliance with the corresponding OECD guideline. The test article is dissolved in 0.2 M NaHCO3. The dose-finding experiment with Becampanel shows that treatment of CD-1 mice by oral gavage with 450.5, 500 or 800 mg/kg, twice with an interval of 24 h, leads to strong signs of toxicity such as laboured breathing, ataxia, and strong sedation. At 320 mg/kg, the same symptoms are visible, but with less severity, and no animals die. On the basis of these results, doses of 32, 100 and 320 mg/kg are chosen for this micronucleus test. In the main experiment five male and five female mice are treated as described above and bone marrow is sampled 48 h after the first application. Nucleated cells are removed from the bone marrow samples using cellulose columns. The cells are loaded on poly-l-lysine coated glass slides by cytocentrifugation using a Shandon Cytospin stained with May Grunwald stain (5%) and Giemsa (14%). The slides are automatically evaluated with a LEITZ MIAS image analyser. No statistical analysis is performed since all values in the treated groups are≤the frequency of micronucleated polychromatic erythrocyte in the concurrent vehicle control group.

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References:

[1]. Suter W, et al. Genotoxicity assessment of the antiepileptic drug AMP397, an Ames-positive aromatic nitro compound. Mutat Res. 2002 Jul 25;518(2):181-94.

Background

Becampanel (AMP397) is the first competitive AMPA antagonist and an antiepileptic agent.

Becampanel is negative in a mouse lymphoma tk assay, which includes a 24 h treatment without S9. A weak micronucleus induction in vitro is found at the highest concentrations tested in V79 cells with S9[1].

Becampanel is negative in the following in vivo studies, which includes the maximum tolerated doses of 320 mg/kg in mice and 2000 mg/kg in rats. Becampanel has no genotoxic potential in vivo[1].

[1]. Suter W, et al. Genotoxicity assessment of the antiepileptic drug AMP397, an Ames-positive aromatic nitro compound. Mutat Res. 2002 Jul 25;518(2):181-94.

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