Structural analogues of selfotel.

Autorzy

Zofia A. Dziuganowska

Katarzyna Ślepokura

Jean-Noël Volle

David Virieux

Jean-Luc Pirat

Paweł Kafarski

Rok wydania

2016

Czasopismo

Journal of Organic Chemistry

Numer woluminu

81

Strony

4947-4954

DOI

10.1021/acs.joc.6b00220

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

A small library of phosphonopiperidylcarboxylic acids, analogues of NMDA antagonist selfotel (CGS 19755), was synthesized. First, the series of aromatic esters was obtained via a palladium-catalyzed cross-coupling reaction (Hirao coupling) of dialkyl phosphites with bromopyridinecarboxylates, followed by their hydrolysis. Then, hydrogenation of the resulting phosphonopyridylcarboxylic acids over PtO_2 yielded the desired phosphonopiperidylcarboxylic acids. NMR studies indicated that the hydrogenation reaction proceeds predominantly by *cis* addition. Several compounds were obtained as monocrystal structures. Preliminary biological studies performed on cultures of neurons suggest that the obtained compounds possess promising activity toward NMDA receptors.

Adres publiczny

http://dx.doi.org/10.1021/acs.joc.6b00220

Strona internetowa wydawcy

https://www.acs.org/content/acs/en.html