For Research Use Only

7-Nitroindazole

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Catalog Number: CM01618

产品信息

Catalog Number:
CM01618

CAS号:
2942-42-9

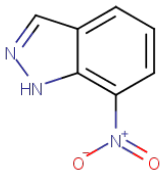
分子式:
$C_7H_5N_3O_2$

主要靶点:
NOS

主要通路:
免疫与炎症

分子量:
163.13

溶解度:
DMSO:32mg/mL(196.16mM)



体内活性

In the experimental model of cocaine multiple administration in rats the selective nNOS inhibitor 7-nitroindazole not only attenuated the behavioral changes induced by cocaine deprivation but also exerted an antioxidant and neuroprotective activity.?The possible mechanisms underlying the neuroprotective effects of 7-NI could be due to the combination of its inhibitory effect of nNOS and its direct free radical scavenging properties.?The beneficial effect of 7-NI in restoration of the antioxidant cell defense in the brain, impaired by multiple cocaine administration, and along with it the attenuation of the physical dependence, induced by cocaine, once again confirm the role of the oxidative stress in the development of addiction to psychoactive compounds[1].

动物实验

Animals were divided into four groups (n = 12) as follows:group 1: control animals, treated with saline for 7 days, which were involved in the experiment from the very beginning and housed under the same standard laboratory conditions as the treated animals;group 2: animals, receiving 15 mg/kg?1 i.p. of cocaine for 7 days;group 3: animals, receiving 25 mg/kg?1 i.p. 7-NI for 7 days ;group 4: animals, treated with 7-NI (25 mg/kg?1 i.p.) and 30 min later with cocaine (15 mg/kg?1) for 7 days.Twenty-four hours after the last administration of the compounds the animals were observed for behavioral changes related to the withdrawal syndrome.?Then the animals were sacrificed through decapitation and brains were extracted.? Brains of six animals from each group were taken for isolation of synaptosomes and brains from the other six animals of each group were used for measurement of nNOS and antioxidant enzymes[1].

描述

7-Nitroindazole is a non-selective inhibitor of NOS isoforms in vitro for neuronal nitric oxide synthase showing a 10-fold selectivity for neuronal NOS.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years