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TI

Carbazates as potent inhibitors of hormone-sensitive lipase.

AU

de Jong, Johannes C.; Sorensen, Lotte G.; Tornqvist, Hans; Jacobsen, Poul [Reprint Author]

CS

Medicinal Chemistry, Novo Nordisk A/S, Novo Nordisk Park, 2760, Maaloev, Denmark
pjac@novonordisk.com

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Article

LA

English

ED

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AB

The central role of adipose tissue hormone-sensitive lipase in regulating fatty acid metabolism makes it a potential pharmacological target for the prevention of peripheral insulin resistance in obese, prediabetic and diabetic individuals. The synthesis of a new series of carbazates is presented. Modification of the phenolic 4-position in a series of 1,2,3,4-tetrahydroisoquinoline and morpholine derived carbazates, yielded inhibitors of the catalytic activity of this enzyme with nanomolar potency.

CC

Biochemistry studies - General 10060
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IT

Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Pharmacology

IT

Parts, Structures, & Systems of Organisms
adipose tissue

IT

Diseases
diabetes: endocrine disease/pancreas, metabolic disease, drug therapy
Diabetes Mellitus (MeSH)

IT

Diseases
obesity: nutritional disease
Obesity (MeSH)

IT

Chemicals & Biochemicals
1,2,3,4-tetrahydroisoquinoline; carbazates: enzyme inhibitor-drug; fatty acid: metabolism; hormone-sensitive lipase: inhibition; morphine

IT

Miscellaneous Descriptors
peripheral insulin resistance

RN

91-21-4 (1,2,3,4-tetrahydroisoquinoline)
9001-62-1 (hormone-sensitive lipase)
57-27-2 (morphine)