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(54) **C-GLYCOSYLPOLYPHENOL ANTIDIABETIC AGENTS, EFFECT ON GLUCOSE TOLERANCE AND INTERACTION WITH BETA-AMYLOID. THERAPEUTIC APPLICATIONS OF THE SYNTHESIZED AGENT(S) AND OF *GENISTA TENERA* ETHYL ACETATE EXTRACTS CONTAINING SOME OF THOSE AGENTS**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57) **ABSTRACT**

The present invention concerns the antidiabetic-activity of compounds type A, namely of 8-β-D-glucosylgenistein, which is not toxic to eukaryotic cells and has demonstrated to produce complete normalization of fasting hyperglycaemia, to reduce excessive postprandial glucose excursion, to increase glucose-induced insulin secretion and insulin sensitivity. An alternative synthesis for this molecular entity and its binding ability to β-amyloid oligomers is also included in the present invention, which also comprises *Genista tenera* ethyl acetate extract for use as antihyperglycaemic, agent i.e. for lowering blood glucose levels in mammals that are pre-diabetic or have type 2 or type 1 diabetes.

The inhibitory activity of α-glucosidase by *Genista tenera* ethyl acetate and butanol extracts and that of glucose-6-phosphatase by these two extracts and the diethyl ether plant extract is also part of the present invention.

6 Claims, 10 Drawing Sheets