

POMEGRANATE ETHANOLIC EXTRACT WITH ANTI-DIABETES AND ANTI-OBESITY EFFECT



Described is a new extraction process to obtain a mixture of active ingredients from pomegranate seeds that can be made at lower temperatures than known processes, avoiding the denaturation of the active ingredients contained therein, thus allowing its use in the treatment and / or prevention of obesity and associated pathologies, such as in particular insulin resistance and type 2 diabetes and hepatic steatosis.



PRIORITY NUMBER

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KEYWORDS:

Diabetes, Food supplements, Glucidic metabolism, Metabolic syndrome, obesity.



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DESCRIPTION

Ethanolic extract from pomegranate seeds that has a complex of conjugated fatty acids (punicic acid, elaidinic acid and eleostearic acid; the characterisation of the lipid fraction is shown in the table), of polyphenol substances and tocopherols, whose action has been tested on human adipocytes in culture, showing an anti-inflammatory effect and an increase in insulin sensitivity on human adipocytes (potential anti-inflammatory and anti-diabetic effect). The compound was also tested in the response of hepatocytes to the accumulation of lipids, revealing that the compound extracted from pomegranate seeds is able to significantly reduce the accumulation of lipids both through the reduction of lipid synthesis and by increasing their catabolism. The method uses an organic solvent (i.e. ethanol), at a working temperature between 20°C and 40°C, most effectively at 25°C (other actual methods work at temperatures over 80°C).

APPLICATIONS

- Dietary supplement;
- Obesity treatment;
- Diabetes treatment.

ADVANTAGES

- Extraction process made at lower temperatures than known processes;
- Greater concentration of the active ingredients contained in the seeds;
- Simplified procedure compared to known procedures and therefore easier to apply and with lower costs.

Acidi grassi	(mg/100g)
Palmitico	1852
Stearico	1232
Oleico	3206
Elaidinico	309
Linoleico	3730
Linolenico	338
Gondoico	423
Punicico	58348
α -eleostearico	1185
Catalpico	418

