SYNTHESIS AND ANTIDIABETIC ACTIVITY OF SOME NEW THIAZOLYL-THIAZOLIDINE-2,4-DIONES

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Type 2 diabetes is one of the most common metabolic diseases still lacking fully effective therapy and characterized by abnormalities of insulin secretion and by insulin resistance of major target tissues [1, 2].

2,4-Thiazolidinediones (2,4-TZDs) are a new class of antidiabetic agents, differ markedly from other antidiabetic agents in that they are effective in normalizing glucose and lipid metabolism associated with insulin resistance and are therefore expected to be useful in the treatment of both type 2 diabetes mellitus and obesity [3-5]. There is a greater need to develop a safe and effective insulin sensitizier for Type 2 diabetes. By decreasing insulin resistance, thiazolidinediones offer a promising new approach to the treatment of diabetes.

In this study, we describe further modifications of the 2,4-TZD derivatives containing thizolyl ring (Formula). The structural evaluation of the compounds was based on the various spectral data. The synthesized compounds are under investigation for their insulinotropic activities in INS-1 cells.

![Formula]