Letter to the editors

Islet cell autoantigen 69 antibodies in IDDM

Dear Sir,

The cloning of the islet cell autoantigen 69 (ICA69) has raised expectations for an additional marker for the prediction of insulin-dependent diabetes mellitus (IDDM) [1, 2]. However, a recent report suggests that ICA69 autoantibodies appear also in rheumatoid arthritis and only in a subgroup of IDDM patients [3], and another group did not show any significant elevation of ICA69 autoantibodies in IDDM [4]. We therefore conducted an exchange of coded sera. Three Western blot assays of recombinant ICA69 and one immunoprecipitation assay of in vitro translated recombinant protein were included. A total of 89 lyophilized sera used in the second glutamic acid decarboxylase antibody workshop were kindly provided by Dr. P. Colman (Royal Melbourne Hospital, Victoria, Australia). An ICA69 antibody standard was not employed and the local laboratories used different approaches to define the cut-off level for antibody positivity. The results showed substantial interassay variations. Only one assay showed a significantly elevated percentage of IDDM patients positive for ICA69

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antibodies in comparison to healthy control subjects (54 vs 22 %, $p < 0.05$).

We conclude that the four assays tested pick up partially different types of signals, for as yet unknown reasons. At present, ICA69 antibodies cannot be added to the list of markers useful for diabetes prediction.

Yours sincerely,

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References

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Internal marker for quantitative analysis of mRNA by reverse transcriptase-polymerase chain reaction in pancreatic beta cells

Dear Sir,

The reverse transcriptase-polymerase chain reaction (RT-PCR) method is widely used for analysis of mRNA levels and is considered to be 1,000–10,000 times more sensitive than the

traditional RNA detecting methods, such as Northern blot analysis or the RNase protection assay [1]. Although the exponential amplification of cDNA by PCR leads to a high sensitivity to detect a low level of expression of the target gene, it also results in an unpredictable level of amplification and makes it difficult to perform quantitative comparisons between samples. To overcome this problem, co-amplification of an internal control gene with the target gene for the same samples is commonly performed. As glyceraldehyde 3-phosphate dehydrogenase (GAPDH) and β -actin genes are considered to be housekeeping genes, both are widely accepted as internal controls for quantification of mRNA [2].

Impairment of glucose-induced insulin release from pancreatic beta cells is one of the major determinants of the pathogenesis of non-insulin-dependent diabetes mellitus. Therefore,

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