

MEETING ABSTRACT

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Homologies between *Bauhinia forficata* Link subsp. *pruinosa* and pancreatic beta-cell specific transcriptional activator: a starting point for drug design new in diabetes?

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Background

Diabetes mellitus (DM) is a chronic disease with an ever-increasing incidence in world and has become the object of scientific research into the search for novel therapeutic alternatives. *Bauhinia forficata* Link, known locally as cow foot, has been traditionally used as tea in folk medicine of Brazil for treatment of DM.

Objective

The purpose of this study is to explore the possible homology between the AA sequences of ribulose 1,5-biphosphate carboxylase large subunit, partial (chloroplast) [*Bauhinia forficata* subsp. *pruinosa*] and pancreatic beta-cell specific transcriptional activator [*Homo sapiens*], using databanks of proteins of National Center for Biotechnology Information (NCBI).

Materials and methods

Were performed the comparison between the AA sequence of the GenBank: CAA94019.1-ribulose 1,5-biphosphate carboxylase large subunit, partial (chloroplast) [*Bauhinia forficata* subsp. *pruinosa*] and GenBank: BAC20389.1-pancreatic beta-cell specific transcriptional activator [*Homo sapiens*], available in the database of NCBI with the Basic Local Alignment Search Tool (BLASTp) software.

Results

The homology between the ribulose 1,5-biphosphate carboxylase large subunit, partial (chloroplast) [*Bauhinia forficata* subsp. *pruinosa*] and the pancreatic beta-cell specific transcriptional activator [*Homo sapiens*] ranged from 48.0% to 63.0% (Fig.1).

Conclusion

Bioinformatics data, suggest a possible pathogenic link between ribulose 1,5-biphosphate carboxylase large subunit, partial (chloroplast) [*Bauhinia forficata* subsp. *pruinosa*] and pancreatic beta-cell specific transcriptional activator [*Homo sapiens*], and studies on this plant are important to the safe, effective development of pharmaceutical products for the treatment of diabetes.

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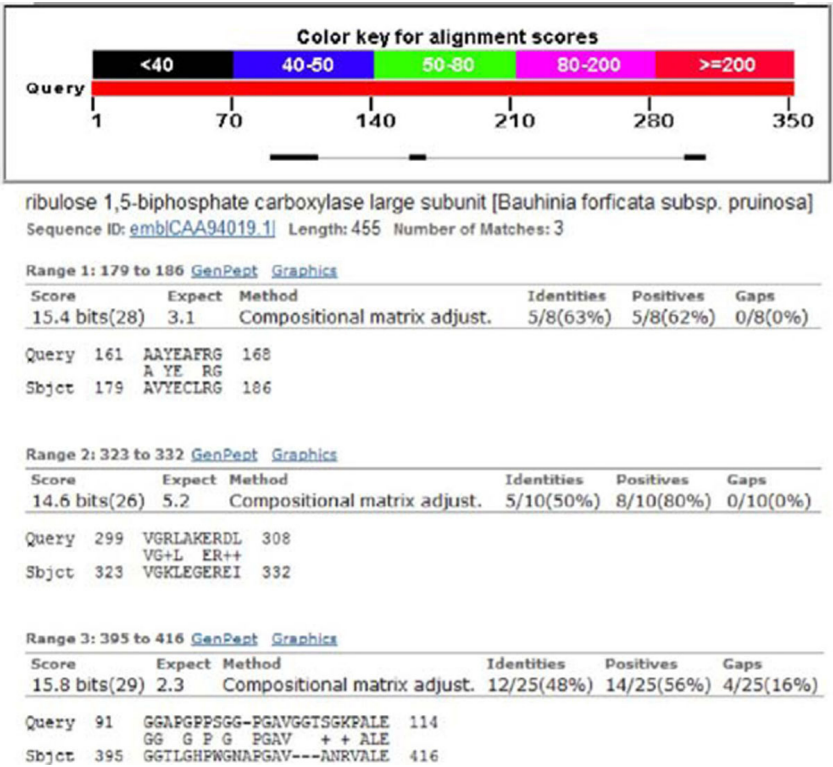


Figure 1 Homologies between bauhinia forficata link subsp., pruinosa and pancreatic beta-cell specific transcriptional activator.