BRIEF DESCRIPTION

[0007] ~~One embodiment of~~In an aspect, there is provided a solid substrate for extraction, stabilization and elution of biomolecules, comprisinges~~s~~ a melezitose under a substantially dry state.

[0008] In another embodiment, a solid substrate for collection, stabilization and elution of biomolecules, comprises a trisaccharide under a substantially dry state.

[0008a] In another aspect, there is provided a solid substrate for collection, stabilization and elution of biomolecules, comprising: a trisaccharide under a substantially dry state selected from melezitose, raffinose, maltotriulose, isomaltotriose, nigerotriose, maltotriose, ketose or combinations thereof.

[0009] One example of a method for extracting, stabilizing and eluting biomolecules from a biological sample disposed on a solid substrate, comprises contacting the biological sample to the substrate; drying the biological sample to a substantially dry state; and eluting the biomolecules from the biological sample dried on the substrate by rehydrating the substrate in an elution buffer, wherein the solid substrate comprises melezitose under a substantially dry state, and optionally one or more lysis reagents, nucleic acid denaturing reagents or combinations thereof, impregnated therein under a substantially dry state.

[0009a] In another aspect, there is provided a method for extracting, stabilizing and eluting biomolecules from a biological sample disposed on a solid substrate, comprising:

contacting the biological sample to the substrate, wherein the substrate comprises melezitose impregnated therein under a substantially dry state;

drying the biological sample to a substantially dry state; and

eluting the biomolecules from the biological sample dried on the substrate by rehydrating the substrate in an elution buffer.

BRIEF DESCRIPTION OF DRAWING

[0010] FIG. 1 is a graph showing enhanced elution efficiency of active, non-denatured β -gal while recovered from a substrate with 15% melezitose compared to unmodified 31-ETF cellulose.

[C001] DETAILED DESCRIPTION

[0011] The embodiments provide suitable matrices and methods for extraction, stabilization and elution of biomolecules, such as proteins, peptides, amino acids, enzymes, and antibodies. Biomolecules which are prone to denaturation are therefore difficult to preserve in an intact form. One or more embodiments of the invention relate to a solid substrate for extraction, stabilization and elution of biomolecules, wherein the substrate comprises a trisaccharide, such as melezitose under a substantially dry state. The solid substrate is configured to collect a