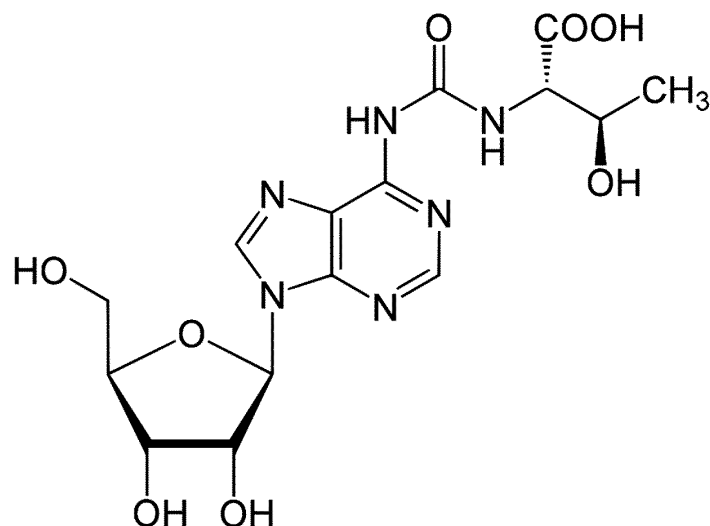


CLAIMS

1. A method of predicting a sepsis condition in a subject, comprising:

- a. determining a level of a biomarker in a sample of said subject, wherein
the biomarker is of structure (I):



or a salt thereof;

and

- b. comparing said level to a predetermined reference value of the
biomarker,

wherein an elevated biomarker level is indicative of the risk of the sepsis condition.

2. The method of claim 1, wherein the reference level is the level of the biomarker in a subject or a group of subjects not being at said risk, or a threshold level indicating the sepsis condition.

3. The method of claim 1 or 2, wherein the sepsis condition is any one or more of sepsis diseases selected from the group consisting of systemic inflammatory response syndrome (SIRS), sepsis, septic shock and multiple organ dysfunction syndrome (MODS).

4. The method of any one of claims 1 to 3, wherein the biomarker is determined applying an analytical method selected from the group consisting of

- (i) an immunoassay, such as enzymatic immunoassay, lateral flow immunochromatographic assay, fluorescent immunoassay, radioimmunoassay, and magnetic immunoassay;
- (ii) chromatography, such as HPLC chromatography, UPLC chromatography, gas chromatography (GC) or thin layer chromatography,
- (iii) capillary electrophoresis, and
- (iv) mass spectrometric analysis, such as SELDI, MALDI, MALDI-Q TOF, MS/MS, TOF-TOF and ESI-Q-TOF, or NMR spectroscopy.

5. A method of monitoring a sepsis disease in a subject, comprising:

- a. determining the level of a biomarker in a sample of a subject at a first time point, wherein the biomarker is as defined in claim 1; and
- b. determining the level of the biomarker in a sample of the same subject at a later second time point,

wherein an increase in the level of the biomarker between the first and second time points is indicative of the sepsis disease progression.

6. A method of monitoring the effectiveness of at least one treatment applied to a subject for a sepsis condition, comprising:

- a. determining the level of a biomarker in a sample of a subject at a first time point, wherein the biomarker is as defined in claim 1; and
- b. determining the level of the biomarker in a sample of the same subject at a later second time point, and

wherein a decrease in the level of the biomarker between the first and second time points is indicative of treatment success.

7. The method of any one of claims 1 to 6, wherein the sample is body fluid selected from the group consisting of blood, plasma, serum, urine, faeces, sputum, synovial fluid and saliva.

8. The method of any one of claims 1 to 7, wherein the sample is spiked with an internal standard compound, and the amount of the biomarker is determined by comparing the level of the biomarker to the level of the internal standard compound, preferably wherein the internal standard compound is the biomarker comprising an isotopic label.

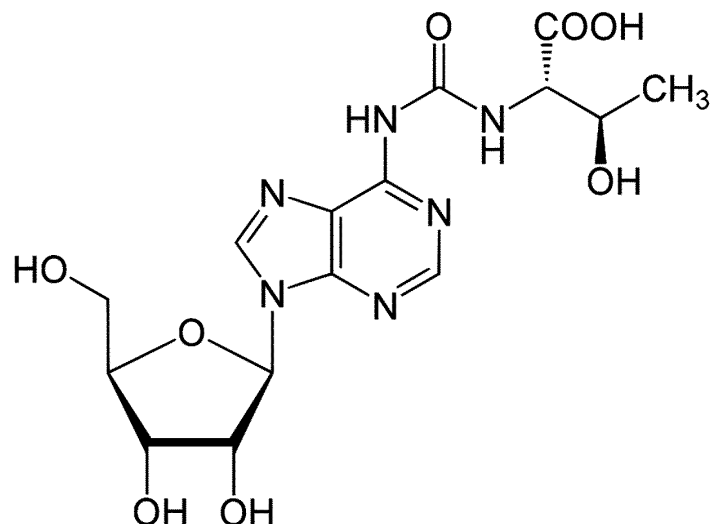
9. The method of claim 8, wherein the internal standard is of structure (I) or a salt thereof, which comprises a detectable label, preferably wherein at least one of the atoms C, H, N, or O, is substituted for the respective heavy isotope C¹³, D, N¹⁵, O¹⁷ and O¹⁸.

10. Use of a diagnostic preparation in a method of determining a sepsis condition, wherein the diagnostic preparation is provided as a composition or a kit of parts, and comprises the following components:

- a. an immunoagent specifically recognizing a biomarker as defined in claim 1;
- b. a further diagnostic reagent being a detectable label or a reagent specifically reacting with the immunoagent and/or the reaction product of the immunoagent binding the biomarker; and
- c. optionally further comprising a solid support to immobilize at least one of the immunoagent or the diagnostic reagent.

11. Use of an immunoagent specifically recognizing a biomarker as defined in claim 1 in a method of determining a sepsis condition, wherein the immunoagent comprises a detectable label.

12. Use of a compound of structure (I):



or a salt thereof, as a biomarker of a sepsis condition.

5 13. A method of predicting a sepsis condition in a subject not suffering from said sepsis condition, comprising:

- a. determining a level of a small molecule biomarker in a sample of said subject, and
- b. comparing said level to a predetermined reference value of the biomarker,

10 wherein an elevated biomarker level is indicative of the risk of the sepsis condition onset, and wherein the biomarker is as defined in claim 1.

14. A method of monitoring a sepsis condition in a subject not suffering from said sepsis condition, comprising:

- 15 a. determining the level of a small molecule biomarker in a sample of a subject at a first time point, and
- b. determining the level of the biomarker in a sample of the same subject at a later second time point,

20 wherein an increase in the level of the biomarker between the first and second time points is indicative of a sepsis condition onset, and wherein the biomarker is as defined in claim 1.