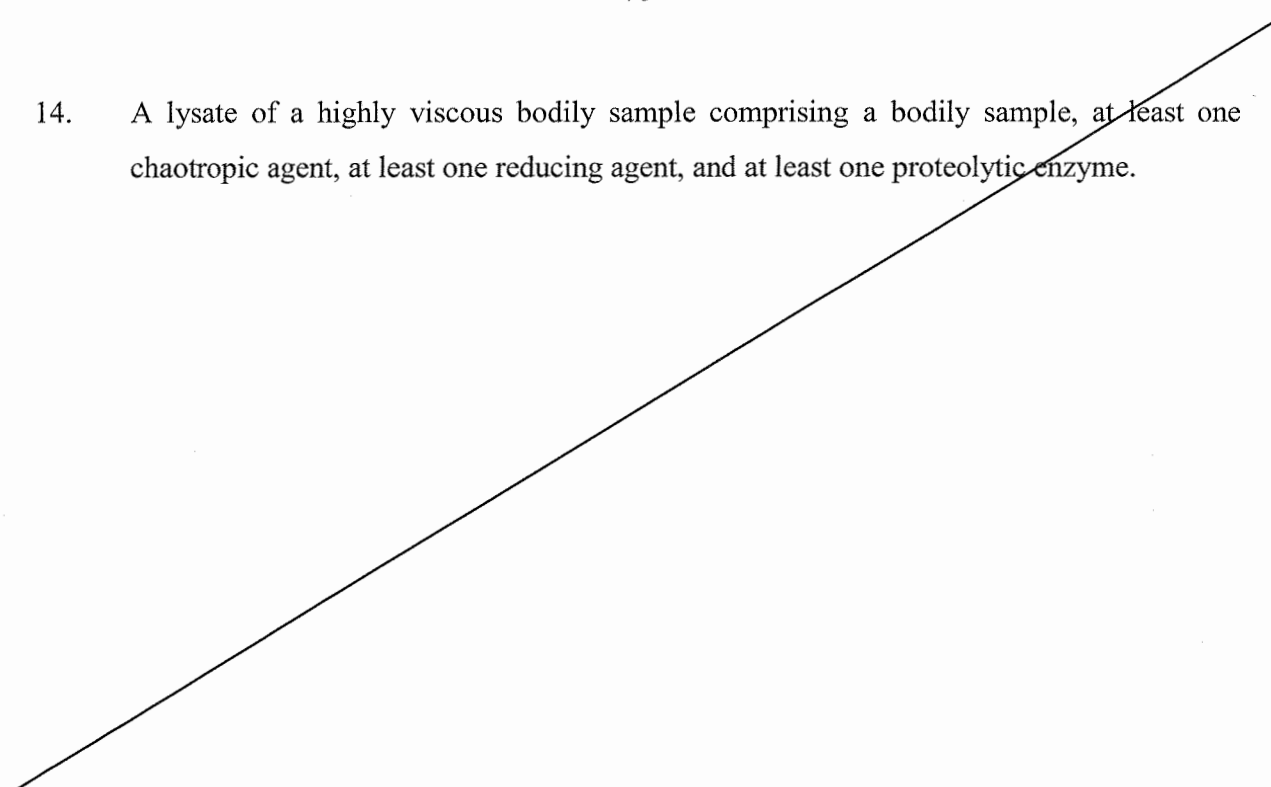


CLAIMS

1. Use of a lysis buffer comprising:
 - (i) at least one chaotropic agent,
 - 5 (ii) at least one reducing agent, and
 - (iii) at least one proteolytic enzymefor the lysis of highly viscous bodily samples.
- 10 2. The use according to claim 1, wherein the lysis buffer further comprises beads, preferably made of a solid inert material such as glass, ceramics, plastics, or metal such as steel.
3. The use according to claim 1 or 2, wherein the lysis buffer is universally applicable for the lysis of highly viscous bodily samples that are relevant for the diagnosis of a respiratory disease.
- 15 4. The use according to any one of claims 1 to 3, wherein the at least one chaotropic agent is selected from the group consisting of guanidinium thiocyanate, guanidinium isothiocyanate, guanidinium hydrochloride, guanidinium chloride, alkali thiocyanate, alkali isothiocyanate, alkali iodide, and alkali perchlorate, and/or the at least one reducing agent is selected from the group consisting of dithiothreitol (DTT), N-acetyl-cysteine (NALC), beta-mercaptoethanol, Tris(2-carboxyethyl) phosphine (TCEP), and thioredoxin, and/or the at least one proteolytic enzyme is selected from the group consisting of a serine protease and a cysteine protease, preferably the at least one proteolytic enzyme is selected from the group consisting of proteinase K, elastase, subtilisin, and caspase.
- 20 5. The use according to any one of claims 1 to 4, wherein the lysis buffer does not contain any other enzyme than the at least one proteolytic enzyme.
- 25 6. A method for processing a highly viscous bodily sample comprising the step of (i) providing a mixture comprising the highly viscous bodily sample to be processed, at least one chaotropic agent, at least one reducing agent, and at least one proteolytic enzyme, preferably further comprising the step of (ii) heating the mixture to a first temperature, and/or
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preferably further comprising the step of (iii) heating the mixture to a second temperature, and/or preferably further comprising the step of (iv) bead milling the mixture.

- 5 7. The method according to claim 6, wherein step (iv) is performed simultaneously to or during step (iii).
8. The method according to claim 6 or 7, wherein steps (ii) to (iv) are performed in an automated process.
- 10 9. The method according to any one of claims 6 to 8, further comprising the step of (v) isolating a nucleic acid from the mixture, preferably using a silica-based or magnetic bead-based nucleic acid isolation technology.
- 15 10. A method for analyzing a highly viscous bodily sample comprising processing the highly viscous bodily sample according to the method of any one of claims 6 to 9 and (vi) applying the mixture to a nucleic acid amplification/analysis method.
- 20 11. A method for detecting the presence of a pathogen in a highly viscous bodily sample comprising processing the highly viscous bodily sample according to the method of any one of claims 6 to 9 and (vi) applying the mixture to a nucleic acid amplification/analysis method that is suitable for detection of said pathogen, wherein preferably the pathogen is associated with a respiratory disease.
- 25 12. A method for diagnosing a respiratory disease in a subject comprising processing a highly viscous bodily sample according to the method of any one of claims 6 to 9 and (vi) applying the mixture to a method that is suitable for diagnosing the respiratory disease, wherein preferably the respiratory disease is an infectious respiratory disease or a respiratory tumor.
- 30 13. A method for processing at least two highly viscous bodily samples comprising processing each of the at least two highly viscous bodily samples according to the method of any one of claims 6 to 9, wherein the at least two highly viscous bodily samples are different types of highly viscous bodily samples.

14. A lysate of a highly viscous bodily sample comprising a bodily sample, at least one chaotropic agent, at least one reducing agent, and at least one proteolytic enzyme.
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CLAIMS

1. Use of a lysis buffer comprising:
 - (i) at least one chaotropic agent,
 - 5 (ii) at least one reducing agent, and
 - (iii) at least one proteolytic enzymefor the lysis of highly viscous bodily samples.
- 10 2. The use according to claim 1, wherein the lysis buffer further comprises beads, preferably made of a solid inert material such as glass, ceramics, plastics, or metal such as steel.
- 15 3. The use according to claim 1 or 2, wherein the lysis buffer is universally applicable for the lysis of highly viscous bodily samples that are relevant for the diagnosis of a respiratory disease.
- 20 4. The use according to any one of claims 1 to 3, wherein the at least one chaotropic agent is selected from the group consisting of guanidinium thiocyanate, guanidinium isothiocyanate, guanidinium hydrochloride, guanidinium chloride, alkali thiocyanate, alkali isothiocyanate, alkali iodide, and alkali perchlorate, and/or the at least one reducing agent is selected from the group consisting of dithiothreitol (DTT), N-acetyl-cysteine (NALC), beta-mercaptoethanol, Tris(2-carboxyethyl) phosphine (TCEP), and thioredoxin, and/or the at least one proteolytic enzyme is selected from the group consisting of a serine protease and a cysteine protease, preferably the at least one proteolytic enzyme is selected from the group
25 consisting of proteinase K, elastase, subtilisin, and caspase.
5. The use according to any one of claims 1 to 4, wherein the lysis buffer does not contain any other enzyme than the at least one proteolytic enzyme.
- 30 6. Use of:
 - (i) at least one chaotropic agent,
 - (ii) at least one reducing agent, and
 - (iii) at least one proteolytic enzymefor the lysis of highly viscous bodily samples.

7. A method for processing a highly viscous bodily sample comprising the step of (i) contacting the highly viscous bodily sample to be processed with at least one chaotropic agent, at least one reducing agent, and at least one proteolytic enzyme, and mixing the highly viscous bodily sample, the at least one chaotropic agent, the at least one reducing agent, and the at least one proteolytic enzyme, preferably further comprising the step of (ii) heating the mixture to a first temperature, and/or preferably further comprising the step of (iii) heating the mixture to a second temperature, and/or preferably further comprising the step of (iv) bead milling the mixture.
8. The method according to claim 7, wherein step (iv) is performed simultaneously to or during step (iii).
9. The method according to claim 7 or 8, wherein steps (ii) to (iv) are performed in an automated process.
10. The method according to any one of claims 7 to 9, further comprising the step of (v) isolating a nucleic acid from the mixture, preferably using a silica-based or magnetic bead-based nucleic acid isolation technology.
11. A method for analyzing a highly viscous bodily sample comprising processing the highly viscous bodily sample according to the method of any one of claims 7 to 10 and (vi) applying the mixture to a nucleic acid amplification/analysis method.
12. A method for detecting the presence of a pathogen in a highly viscous bodily sample comprising processing the highly viscous bodily sample according to the method of any one of claims 7 to 10 and (vi) applying the mixture to a nucleic acid amplification/analysis method that is suitable for detection of said pathogen, wherein preferably the pathogen is associated with a respiratory disease.
13. A method for diagnosing a respiratory disease in a subject comprising processing a highly viscous bodily sample according to the method of any one of claims 7 to 10 and (vi) applying the mixture to a method that is suitable for diagnosing the respiratory disease,

wherein preferably the respiratory disease is an infectious respiratory disease or a respiratory tumor.

5 14. A method for processing at least two highly viscous bodily samples comprising processing each of the at least two highly viscous bodily samples according to the method of any one of claims 7 to 10, wherein the at least highly viscous two bodily samples are different types of highly viscous bodily samples.

10 15. A lysate of a highly viscous bodily sample comprising a bodily sample, at least one chaotropic agent, at least one reducing agent, and at least one proteolytic enzyme, wherein the at least one proteolytic enzyme is active in the presence of the at least one chaotropic agent.

15 16. Use of a kit for processing a highly viscous bodily sample, wherein the kit comprises:
(i) a chaotropic agent,
(ii) a reducing agent,
(iii) a proteolytic enzyme, and
(iv) an instruction leaflet for processing a highly viscous bodily sample.