

Risk Declaration

For further instructions on how to write your risk declaration, see SOP on the lifebio server.

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Experiment: SUPPLEMENTARY RISK DECLARATION, BIOSENSOR IN LUNG CANCER

1. Description of experiment:

Short and precise, explaining the different steps in your experiment. If you are working with microorganisms, remember to specify the species and the biosafety level required.

To take part of the iGEM INTERLAB STUDY. Make Agar LB + Chloramphenicol plates and medium.

2. KLARA Risk Assessments read:

Specify risks assessments that are relevant to your experiment. Use the information when you summarize the risks and how to minimize them under sections 4 and 5.

SB/IB - Rotary Shakers/Incubators; SB/IB - -80°C Freezer; SB/IB - Heat Block; SB/IB - Vertical Autoclave/Benchtop autoclave; SB/IB – sterile work/LAF-bench

3. Chemicals:

Specify MSDS read and safety information for each chemical in your experiment. For every chemical, specify the chemical name, CAS-number, the concentration of the final solution (if applicable), CLP hazard pictogram(s) (use table below) and hazard statement(s).

CLP hazard pictograms in accordance to EG 1272/2008								
								
Gas under pressure	Explosive	Oxidizing	Flammable	Corrosive	Health hazard	Acute toxicity	Serious health hazard	Hazardous to the environment

Chemical name and [CAS-No]	Conc. of handled solution	Pictogram(s)	H statement(s)
Chloramphenicol [56-75-7]	25 mg/mL	 	H350 – can cause cancer
Yeast extract [8013-01-2]	5 g/l	-	-
Peptone [73049-73-7]	10 g/l	-	-
Agar [9008-18-0]	20 g/l	-	-
NaCl [7647-14-5]	10 g/l	-	-

3.1 Use of restricted chemicals

Use the chemical information in KLARA to answer the following questions. (In KLARA you will find this information listed under the section "Regulations" or in Swedish "Regler och krav". Note! If your chemical does **not** have a classification, this section will not show up on the KLARA information page.)

- a) Are any of the chemicals classified as either a Group A or Group B chemical? If yes, which one(s), and do we have a valid permit? **NO**
- b) Are any of the chemicals classified as a CMR (Carcinogenic, Mutagenic or Reprotoxic) substance? If yes:
 - i. Which one(s)?
Chloramphenicol
 - ii. How frequently will you be handling them (times/month)?
2 times/month
- c) Does any of the chemicals have the hazard statement H317 and/or H334? **NO** If yes:
 - i. Which one(s)?
 - ii. How frequently will you be handling them (times/month)?
 - iii. Do you have any allergies?

4. Comments on risks:

Identify and specify risks associated with reactions or combinations of chemicals, equipment used or other potential risks. Where is the actual element of risk? When do you need to take precautions to work in a safe way?

The antibiotic chloramphenicol is both cancerogenic and toxic. When handling the stock you should be extra careful and not breathe in or touch the chloramphenicol (if this happens, seek medical advice immediately.) To avoid this, handle the stock with great care in fume hood and/or LAF bench. Proper protection such as gloves, lab coat and glasses should also be used.

5. Risk reductions:

5.1 Storage:

Some chemicals can be hazardous if they are not kept in a proper way (e.g. flammable compounds). Specify how you will store those chemicals safely.

The container with chloramphenicol should be tightly closed and stored in a cupboard with proper labelling on (toxic and cancerogenic).

5.2 Chemical handling:

Specify how to minimize the risks in handling the chemical(s), (e.g. use of fume hood, ventilation arms, and which type of gloves you need to use).

Personal protection needed:

- Gloves and lab coat
- Safety glasses
- Facial mask
- Other, specify: fume hood/LAF bench

5.3 Waste handling:

Specify what kind of waste is produced, and how it is handled/disposed of. Consider every step in your experiment. Remember that you will likely generate both solid and liquid waste. If you are disposing of biological waste containing antibiotics, check and state whether or not the antibiotic is inactivated during autoclaving.

All containers with liquid biological and chemical waste will be labeled with content, name and date. Liquid biological waste containing chloramphenicol will be collected as chemical waste and sent to Ragn-Sells for waste handling, after being marked as hazardous waste.

6. Final evaluation of risks

Take into consideration the probability of an accident occurring and the severity of the possible consequences to evaluate the risk of your experiment (see evaluation matrix in SOP).

Choose one of the following:

- Acceptable risk
- Some risk
- Severe risk
- Very severe risk

I declare that I have read the Risk Assessments and MSDS stated above and that I am aware about the risks involved with this experiment. I will follow the guidelines concerning safety precautions to minimize the risks associated with this experiment.

Signature

Signature

Signature

Signature

Signature

Signature

The risk declaration has been read by:

Signature of Supervisor

Signature of Research Engineer