



May 02, 2024

PCR Protocol Template



Forked from [PCR Protocol Template](#)

This protocol is a draft, published without a DOI.

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Protocol status: In development

We are still developing and optimizing this protocol

Created: November 10, 2023

Last Modified: May 03, 2024

Protocol Integer ID: 99134

Abstract

A protocol template created through the BeBOP project for PCR.

Guidelines

MIOP: Minimum Information about an Omics Protocol

MIOP Term	Value
methodology category	
project	
purpose	
analyses	
geographic location	
broad-scale environmental context	
local environmental context	
environmental medium	
target	
creator	
materials required	
skills required	
time required	
personnel required	
language	
issued	
audience	
publisher	
hasVersion	
license	
maturity level	

See <https://github.com/BeBOP-OBON/miop/blob/main/model/schema/terms.yaml> for list and definitions.

AUTHORS

PREPARED BY All authors known to have contributed to the preparation of this protocol, including those who filled in the template.	AFFILIATION	ORCID (visit https://orcid.org/ to register)	DATE
Content Cell	Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	Content Cell	yyyy-mm-dd

RELATED PROTOCOLS

PROTOCOL NAME AND LINK	ISSUER / AUTHOR	RELEASE DATE This is the date corresponding to the version listed to the left
Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	yyyy-mm-dd

This is a list of other protocols which should be known to users of this protocol. Please include the link to each related protocol.

ACRONYMS AND ABBREVIATIONS

ACRONYM / ABBREVIATION	DEFINITION
Content Cell	Content Cell

GLOSSARY

SPECIALISED TERM	DEFINITION
Content Cell	Content Cell
Content Cell	Content Cell

BACKGROUND

This document describes the required protocol to conduct insert name of the method/protocol.

Summary

Insert a short description of the background for the method/protocol (e.g. why and for which purpose do you perform water sampling). Please provide a brief summary of your method including, as appropriate, a brief description of what techniques your best practice is about, which ocean environments or regions it targets, the primary sensors covered, what type of data/measurements/observing platform it covers, limits to its applicability.

Method description and rationale

Insert a short description of the functioning principal of the methodology used in the protocol (i.e. how does the method work?). Please note that this is different from the step-by-step description of the protocol procedure.
Insert a short statement explaining why the specific methodology used in the protocol has been selected (e.g. it is highly reproducible, highly accurate, procedures are easy to execute etc....).

Spatial coverage and environment(s) of relevance

If applicable, please specify the region where the protocol is applied. For regional term guidance see here. If applicable, please indicate here the environment(s) of relevance for the protocol, e.g. Abyssal plain. Select from the ENVO terminology.

Personnel Required

Insert the number of technicians, data managers, and scientists required for the good execution of the procedure

Safety

Identify hazards associated with the procedure and specify protective equipment and safety training required to safely execute the procedure

Training requirements

Specify technical training required for the good execution of the procedure.

Time needed to execute the procedure

Specify how much time is necessary to execute the procedure.

Materials

EQUIPMENT

DESCRIPTION e.g. filter	PRODUCT NAME AND MODEL Provide the official name of the product	MANUFACTURER Provide the name of the manufacturer of the product.	QUANTITY Provide quantity
Durable equipment			
Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell
Consumable equipment			
Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell
Chemicals			
Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell

Before start

Read background information, MIOP and BePOP-OBON information under the "Guidelines" tab.



PREPARATION

- 1 Please specify the preparatory actions you took before you collected the samples and note what equipment was needed to do so (e.g. disinfection of work surfaces, preparations to the equipment you intend to use later on).

Step

- 2 Step

- 3 Step

PCR

- 4 Please specify the actions you took to amplify the previously extracted DNA and the equipment and primers you used (ingredients for the PCR reaction, number of triplicates, PCR cycle parameter)

PCR Primer Name	Direction	Sequence (5' -> 3')
content	forward	content
content	reverse	content

- 5

PCR step	Temperature	Duration	Repetition
content	content	content	content
content	content	content	content

- 6 Step

PCR clean-up

- 7 Please specify the actions you took to confirm the quality of the PCR output, to clean up the PCR output and the equipment you used (e.g. agarose gel to confirm quality, purification of PCR products).

QUALITY CONTROL

- 8 Describe and explain criteria used to validate results of the standard operating procedure.

BASIC TROUBLESHOOTING GUIDE

- 9 Identify known issues associated with the procedure, if any.

Provide troubleshooting guidelines when available.

APPENDIX A: DATASHEETS

- 10 Link templates (e.g. preformatted spreadsheets) used to record measurements and report on the quality of the data as well as any documents such as manufacturer specifications, images, etc that support this protocol. Please include a short note describing the document's relevance.



Protocol references

Insert all references cited in the document.

Please insert full DOI address when available, e.g. <http://doi.dx.org/10.1007/s11258-014-0404-1>