



Nov 25, 2025

Polymerase Chain Reaction (PCR) and Droplet Digital PCR (ddPCR) Protocol

DOI

<https://dx.doi.org/10.17504/protocols.io.x54v9288ml3e/v1>

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Collection Citation: Katie Jing Kay Lam, Olubankole Arogundade, Claire Clelland 2025. Polymerase Chain Reaction (PCR) and Droplet Digital PCR (ddPCR) Protocol. **protocols.io** <https://dx.doi.org/10.17504/protocols.io.x54v9288ml3e/v1>

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Protocol status: Working

We use this collection and it's working

Created: March 07, 2024

Last Modified: November 25, 2025

Collection Integer ID: 97370

Keywords: droplet digital pcr, ddpcr, dna preparation, polymerase chain reaction, pcr, protocol detail, protocol this protocol, protocol, gel electrophoresi

Abstract

This protocol details the DNA preparation, polymerase chain reaction (PCR), gel electrophoresis, and droplet digital PCR (ddPCR) processes.

Attachments



[pyqqbzqzk7.pdf](#)

2.9MB

Materials

A	B	C
Reagent	Manufacturer	Catalog No.
DNA preparation		
QuickExtract™ DNA Extraction Solution	Biosearch Technologies	76081-768
PCR		
BioMix™ Red	Meridian Life Sciences	C755F25
Dimethyl sulfoxide (DMSO)	Sigma Aldrich Fine Chemicals Biosciences	D8418
Gel electrophoresis		
Quick-Load® Purple 1 kb Plus DNA Ladder	New England Biolabs Inc.	N0550S
SYBR™ Safe DNA Gel Stain	Invitrogen	S33102
TAE Buffer (Tris-acetate-EDTA) (50X)	Thermo Scientific	B49
ddPCR		
ddPCR™ Copy Number Assay: RPP30, Human, Homo sapiens	Bio-Rad	dHsaCP1000485
ddPCR Supermix for Probes (No dUTP)	Bio-Rad	1863024
Droplet Generation Oil for Probes	Bio-Rad	1863005

A	B	C
Equipment/Consumable	Manufacturer	Catalog No.
PCR		
Thermal Cycler	Bio-Rad	
Gel electrophoresis		



	A	B	C
	LI-COR Odyssey M Imager	LI-COR	
	PowerPac™ HC Power Supply	Bio-Rad	
	Sub-Cell GT Horizontal Electrophoresis System	Bio-Rad	
	ddPCR		
	C1000 Touch™ Thermal Cycler with 96-Deep Well Reaction Module	Bio-Rad	1851197
	ddPCR™ 96-Well Plates	Bio-Rad	12001925
	DG8™ Cartridges	Bio-Rad	1864008
	DG8™ Cartridge Holder	Bio-Rad	1863051
	DG8™ Gaskets	Bio-Rad	1863009
	PCR Plate Heat Seal, foil, pierceable	Bio-Rad	1814040
	PX1 PCR Plate Sealer	Bio-Rad	1814000
	QX200 Droplet Digital PCR System	Bio-Rad	

Attachments



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df

2.9MB

Files

 SEARCH

Protocol

NAME
Polymerase Chain Reaction (PCR)

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Protocol

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Gel electrophoresis

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PCR for sequencing

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Droplet Digital PCR (ddPCR)

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Protocol

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Experimental/Assay design

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