



DNA Sample Preparation Using Chelex 100 Resin for Forensic and Population Genetic Analyses

Publications List

Chelex 100 Resin has long been used for fast and easy DNA preparation from many sample types ranging from cell cultures to tissues.

Chelex 100 Resin, and the related InstaGene Matrix, offer cost-effective alternatives to commercial DNA or RNA extraction kits. Chelex 100–based protocols require far fewer consumables than do extraction kits, thus generating significantly less waste.

Here we compiled examples of studies that utilized Chelex 100 Resin for forensic or population genetic analyses over the last 20 years.

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Forensic examination and application of areca nuts as material evidence.
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Development of a 16 X-STR multiplex PCR system for kinship analysis and its applicability for the Sinhalese population in Sri Lanka.
Int J Legal Med 135, 161–166.

Alqahtani A et al. (2020).

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J Anat 237, 587–600.

Ferreira IR et al. (2020).

A newborn screening pilot study using methylation-sensitive high resolution melting on dried blood spots to detect Prader-Willi and Angelman syndromes.
Sci Rep 10, 13,026.

Pankham A and Tatu T (2020).

Detecting HbE gene using DNA extracted from urine sediments by Chelex-plus-heating technique.
J Biomol Tech 31, 81–87.

Wang WH et al. (2020).

Establishment and evaluation of a novel method based on loop-mediated isothermal amplification for the rapid diagnosis of thalassemia genes.
Risk Manag Healthc Policy 13, 303–311.

Brito FCA et al. (2019).

DNA extraction of urinary bladder swabs collected from carbonized and decomposing corpses: Possible application in disaster victim identification.
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Fachet C et al. (2017).

High resolution melt curve analysis based on methylation status for human semen identification.
Forensic Sci Med Pathol 13, 86–91.

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Int J Legal Med 131, 657–660.

Pirlea S et al. (2017).

Permanganate-assisted removal of PCR inhibitors during the DNA Chelex extraction from stained denim samples.
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Forsberg C et al. (2016).

High-throughput DNA extraction of forensic adhesive tapes.
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Olewi AA et al. (2015).

The relative DNA-shedding propensity of the palm and finger surfaces.
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Yang H et al. (2015).

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Adayev T et al. (2014).

Fragile X protein in newborn dried blood spots.
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Yue L et al. (2014).

Rapid screening for sickle cell disease by polymerase chain reaction-high resolution melting analysis.
Mol Med Rep 9, 2,479–2,484.

Walsh PS et al. (2013).

Chelex 100 as a medium for simple extraction of DNA for PCR-based typing from forensic material.
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Wang PH et al. (2013).

DNA extraction and sex determination for human teeth dated 3000 years ago unearthed in Xi'an.
Zhonghua Yi Xue Yi Chuan Xue Za Zhi 30, 619–621.

Zhu YS et al. (2011).

A study on the relationship between TCTA tetranucleotide polymorphism of the HPRT gene and primary hyperuricemia.
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Grsković B et al. (2010).

Population genetic analysis of haplotypes based on 17 short tandem repeat loci on Y chromosome in population sample from eastern Croatia.
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Torres-Serrant M et al. (2010).

Newborn screening for Hermansky-Pudlak syndrome type 3 in Puerto Rico.
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Feng Y et al. (2008).

A method for DNA examination on mouth mucosa exfoliative cells from toothbrush bristles.
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Ba HJ et al. (2007).

Comparative research of the influence factors of DNA extraction of bloodstain on the filter paper with Chelex-100 method.
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Mitochondrial DNA amplification success rate as a function of hair morphology.
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Med Arh 59, 57–58.

Rekand T et al. (2003).

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J Virol Methods 114, 91–96.

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Am J Forensic Med Pathol 23, 268–271.

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