



ITSIProtect DNA Dry User Guide – 5 Samples

BACKGROUND: ITSIProtect DNA Dry (IpDD, Cat No. K-0050D) is a specially formulated product that is based on an Active Chemical Protection™ technology. The product will prevent the breakdown of extracted DNA or DNA in biological samples such as blood, serum, plasma, saliva, urine and cell/tissue lysate. It is ideal for risk-free ambient temperature storage and transport of DNA in the dry state. DNA samples treated with IpDD can be stored dry at room temperature for years with no degradation of the DNA. Samples treated with IpDD can be safely shipped dry using courier or standard ground transportation. IpDD is compatible with downstream applications such as PCR, electrophoresis, chromatography, sanger sequencing, next generation sequencing and microarray.

MATERIALS PROVIDED IN THIS KIT (Sufficient for 5 samples):

S/N	ITEM	QTY	CAT. #	SHIPS
1	ITSIProtect DNA Dry. Supplied dry in tubes.	5	K-0050D -5	Rm.T.
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MATERIALS REQUIRED BUT NOT SUPPLIED:

- Molecular grade water.
- Vortex mixer.
- Adjustable pipettes.
- Vacufuge or other drying method.

PROCEDURE

Read the procedure completely before starting.

A. Treatment of extracted DNA and biological samples with ITSIProtect DNA Dry

- Pipette up to 50µL of extracted DNA (0.05–25µg) or biological fluid into the ITSIProtect DNA Dry tube provided.
- Mix the sample by pipetting up and down 10 times.
- Dry the sample completely in a vacufuge, biosafety hood or vacuum desiccator at room temperature or lower. **Note:** The drying process should not exceed 24hours.
- Securely cap tube.
- Dried samples are ready for shipping or long-term storage in the dry state at room temperature.

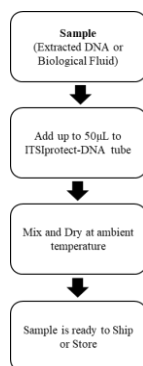


Fig 1: Illustration of the steps involved in treatment of extracted DNA and biological samples with ITSIProtect DNA Dry.

B. Recovery of treated extracted DNA and biological samples

- Add molecular grade water to the tube containing the dried sample. **Note:** To avoid sample dilution, the volume of water used to reconstitute the dried sample should not exceed the starting volume of the sample.

2a. Extracted DNA

Incubate extracted DNA samples for 15 minutes. Then resuspend gently. Do not vortex extracted DNA as this may cause shearing. Aliquots of extracted DNA may be taken repeatedly and the remnant sample re-dried until 75% of the original volume is used.

2b. Biological Samples

Incubate Biological fluids for 15 minutes. Vortex occasionally to fully reconstitute the sample. **Note:** Samples such as whole blood may require the use of a DNA isolation kit after reconstitution.

- Samples are now ready to use.

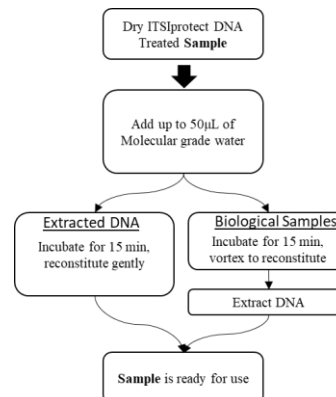


Fig 2: Illustration of the steps involved in the recovery of extracted DNA and biological samples treated with ITSIProtect DNA Dry.

*Conditions for use of this procedure/Buffers:

This protocol is the intellectual property of ITSI Biosciences. ITSIProtect DNA is owned by ITSI Biosciences, LLC. Active Chemical protection™ is a trademark owned by GenTegra LLC. Considering that many factors can cause experiments to fail, ITSI Biosciences cannot guarantee that the use of this protocol and reagents will lead to a successful experiment. In no event shall ITSI Biosciences be held liable for loss of samples, failure of experiments or any other damage or injury associated with the use of this product.

Consider all chemicals as potentially hazardous. Only trained laboratory personnel familiar with good laboratory practice should handle this product. Protective clothing and gloves should be always worn. Use caution to avoid contact with skin and eyes. If contact should occur, wash immediately with plenty of water and follow established guidelines/procedures in your laboratory.

Warning: The procedure and kit are intended for research use only, not for use in human, therapeutic, or diagnostic applications. While ITSI Biosciences may replace defective products, it does not accept any responsibility for improper use of this product, or loss/damage to samples. The end user is responsible for all local, state and federal regulations associated with the use and disposal of laboratory reagents.