QIAGEN Supplementary Protocol:

Scalable purification of archive-quality DNA from 0.5–700 mg solid tissue using the Gentra® Puregene® Tissue Kit

This protocol provides information about scaling of reagents required for purification of DNA from 0.5–700 mg solid tissue using the Gentra Puregene Tissue Kit.

The Gentra Puregene Tissue Kit enables convenient, scalable purification of DNA from a wide variety of tissue types as well as paraffin-embedded tissue and fixed cells. Reagent volumes are scaled proportionately according to the amount of starting material. Tables1 and 2 show the volumes of reagents required for DNA purification from 0.5–700 mg solid tissue. The information provided in Tables 1 and 2 is intended to supplement the information given in "Protocol: DNA Purification from Tissue Using the Gentra Puregene Tissue Kit" in the *Gentra Puregene Handbook*.

IMPORTANT: Please read the *Gentra Puregene Handbook*, paying careful attention to the safety information, before beginning this procedure. For safety information on the additional chemicals mentioned in this protocol, consult the appropriate material safety data sheets (MSDSs), available from the product supplier. The Gentra Puregene Tissue Kit is intended for molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of a disease.

Table 1. Purification of DNA from 0.5–25 mg samples of solid tissue

	Weight of tissue (mg)				
	0.5–2	**2–5**	**5–10**	**10–20**	**25**
Tube size (ml)	1.5	1.5	1.5	1.5	2
Volume of Cell Lysis Solution (ml)	0.1	0.15	0.3	0.6	0.75
Volume of RNase A Solution (µl)	0.5	0.75	1.5	3	3.75
Volume of Protein Precipitation Solution (ml)	0.033	0.05	0.1	0.2	0.25
Volume of 100% isopropanol (ml)	0.1	0.15	0.3	0.6	0.75
Volume of 70% ethanol (ml)	0.1	0.15	0.3	0.6	0.75
Volume of DNA Hydration Solution (µl)	20	25	50	100	150
Typical DNA yield (µg)*	0.3–0.8	1–20	2.5–40	5–80	12–100

* The expected yield range is based on average yields obtained from a variety of tissues. Yield of DNA may vary considerably depending on the tissue type.

Table 2. Purification of DNA from 50–700 mg samples of solid tissue

	Weight of tissue (mg)				
	50	**100**	**100–200**	**300–600**	**600–700**
Tube size (ml)	15	15	15	50	50
Volume of Cell Lysis Solution (ml)	1.5	3	6	18	21
Volume of RNase A Solution (µl)	7.5	15	30	90	105
Volume of Protein Precipitation Solution (ml)	0.5	1	2	6	7
Volume of 100% isopropanol (ml)	1.5	3	6	18	21
Volume of 70% ethanol (ml)	1.5	3	6	18	21
Volume of DNA Hydration Solution (µl)	200	400	500	1000	1000
Typical DNA yield (µg)*	25–200	50–400	50–800	150–2400	300–2800

* The expected yield range is based on average yields obtained from a variety of tissues. Yield of DNA may vary considerably depending on the tissue type.

QIAGEN handbooks can be requested from QIAGEN Technical Service or your local QIAGEN distributor. Selected handbooks can be downloaded from www.qiagen.com/literature/handbooks/default.aspx. Material safety data sheets (MSDS) for any QIAGEN product can be downloaded from www.qiagen.com/ts/msds.asp.