



**GF-1**

# Nucleic Acid Extraction Kit (MINI-PREP KIT) Selection Chart

Purification made EASY

Type of Kit	Target Nucleic Acid	Pack Size	Starting Sample Materials	Protocol Time	Volume of Purified Products	Expected Recovery Rate / Volume
PCR Clean-Up Kit	DNA, PCR products	50, 100, 200	PCR products 100bp to 20kb; minimum volume: 100µl, maximum volume: 500µl	Purification time: <15 mins	30-200µl	Recovery: 90%
Gel DNA Recovery Kit	DNA, PCR products	50, 100, 200	PCR products 100bp to 10bp; TAE or TBE agarose gel	Isolation time: 30 mins Purification time: <15 mins	30-50µl	Recovery: 90%
AmbiClean Kit (Gel & PCR)	DNA, PCR products	50, 100, 200	PCR products 100bp to 20kb; PCR clean-up: 100µl to 500µl; Gel-cut: TAE or TBE gel	Isolation time: 30 mins Purification time: <15 mins	30-200µl	Recovery: 90%
Bacterial DNA Extraction Kit	DNA	50, 100	Gram-positive or Gram-negative bacteria; bacteria culture: 1-3ml, bacteria colony: 5 x 10 <sup>6</sup> (maximum)	Isolation time: 50 mins Purification time: <30 mins	50-100µl	Up to 20µg
Blood DNA Extraction Kit	DNA	50, 100	Whole blood: fresh blood, room-temp blood (2 days), frozen anti-coagulated blood; Recommended volume: 200µl, maximum: 400µl	Isolation time: <30 mins Purification time: <30 mins	100µl	Up to 20ng
Tissue DNA Extraction Kit	DNA	50, 100	Various tissue organs-kidney, heart, lungs, brain, muscle, liver, spleen: 10-20mg; culture animal cells: 5 x 10 <sup>6</sup>	Isolation time: 1-2 hrs (overnight); Purification time: <30 mins	200µl	Up to 20µg
Tissue Blood Combi DNA Extraction Kit	DNA	50, 100	Blood, serum, plasma-fresh blood, room-temp blood (2 days), frozen anti-coagulated blood: 200 - 400µl; Various tissue organs-kidney, heart, lung, brain, muscle, liver, spleen: 10-20mg; cultured animal cells: 5 x 10 <sup>6</sup>	Isolation time: Blood: <30 mins Tissue: 1-3 hrs (overnight) Purification time: <30 mins	100-200µl	Blood: up to 20ng; Tissue: up to 20µg
Plasmid DNA Extraction Kit	DNA	50, 100, 200	Plasmid-containing bacteria cells- bacteria colony or bacteria culture: 5-10ml	Isolation time: <30 mins Purification time: <30 mins	50-100µl	Up to 20µg
Plant DNA Extraction Kit	DNA	50 - 100	Various parts and type of plants-leaves, flowers (petals), seeds, root: 10-30mg *Plant with high levels of secondary metabolites, polyphenols & polysaccharides will have weak performance	Isolation time: 1-2 hrs (overnight) Purification time: <30 mins	50-100µl	Up to 20ng
Food DNA Extraction Kit	DNA	25	Raw or processed food from plant, animal or mixed origins; raw samples- soybean, maize, soy flour, soymilk, sausage, meat, cereal meal, cocoa: Ground sample: 100-200mg Liquid: 400µl	Isolation time: 30 mins Purification time: <30 mins	50-100µl	Up to 20ng
Forensic DNA Extraction Kit	DNA	25	Blood spot & biological stains: <1cm <sup>2</sup> ; Biological fluids- semen: 50-250µl, saliva: 1.5ml; Buccal swab: swab sticks, bacteria pellet; Biological materials- hair, nails, features: 0.5-1cm or maximum 20mg	Isolation time: • blood spot/stain: 1 hr • biological fluid: 0.5-2.5 hr • swab: 0.5-1 hr • biological materials: 30 mins Purification time: <30 mins	50-100µl	Up to 20ng
Soil Sample DNA Extraction Kit	DNA	25	Soil sample: 0.2-1g	Isolation time: 10 mins Purification time: <30 mins	30-100µl	Up to 20ng
Total RNA Extraction Kit	RNA	25, 50, 100	Animal tissue (except skeletal tissue): 30mg; Plant tissue: 100mg; Yeast: 5 x 10 <sup>7</sup> ; Cell culture: 1 x 10 <sup>7</sup> ; Bacterial cell (Gram positive & negative): 1 x 10 <sup>9</sup>	Isolation & purification time: 30 mins	40-60µl	Up to 3µg
Blood Total RNA Extraction Kit	RNA	25, 100	Whole blood- fresh blood, frozen anti-coagulated blood: recommended volume: 400µl, maximum: 1ml	Isolation time: <30 mins Purification time: 30 mins	30-50µl	Up to 3µg
Viral Nucleic Acid Extraction Kit	DNA, RNA	50, 100, 300	Serum, plasma, blood, body fluid which containing infected virus or virus-infected cell culture supernatant: 200µl	Isolation time: <30 mins Purification time: <30 mins	30-50µl	DNA: up to 20µg; RNA: up to 3µg
Plant II DNA Extraction Kit	DNA	50, 100	Various parts and type of plants- leaves, flowers (petals), seeds, root: 10-30mg *Targeting plant with high levels of secondary metabolites, polyphenols & polysaccharides (the finer samples lyze, the better the yield)	Isolation time: <20 mins Purification time: <10 mins	50µl	DNA: up to 20µg
Fungus DNA Extraction Kit	DNA	50, 100	Fungus samples; mold samples; mushrooms: 30mg Viscous form samples; aliquot 280µl Lysis buffer and collect the sample using inoculation loop and stir; Fungus culture: 1-3ml	Isolation time: <60 mins Purification time: <10 mins	50µl	DNA: up to 20µg
Gelatin DNA Extraction Kit	DNA	50, 100	Powder form: 2g; gel form: 2g	Isolation time: 1 hour Purification time: <10 mins	50-100µl	Up to 20µg
microTotal RNA Extraction Kit	RNA	25, 50, 100	Animal tissue - Fresh/Frozen: 30mg; Monolayer / Suspension Cell culture - 1 x 10 <sup>4</sup> - 5 x 10 <sup>6</sup> cells per prep; Biological fluids - Whole blood, plasma, serum, buffy coat, CSF, semen, saliva and body fluids - 100µl	Isolation time: <5 mins Purification time: <10 mins	40-60µl	RNA: 3µg
Tissue Viral Nucleic Acid Extraction Kit	DNA, RNA	50, 100	Human or animal viral infected tissue sample (organs) - 100mg	Isolation time: <40 mins Purification time: <10 mins	30-50µl	DNA: up to 20µg; RNA: up to 3µg