Overview – PacBio® Nanobind® PanDNA HMW DNA extraction protocols

For example yield results, see the PanDNA kit brochure and guide & overview.

Sample type	Starting material	Samples input	Workflow time	Procedure & checklist
Blood	Human whole blood	200 µL	~1 hr.	Extracting HMW DNA from human whole blood (102-573-500)
	Nucleated red blood cells (nRBCs)	2.5–20 µL	~1 hr.	Extracting HMW DNA from nucleated red blood cells (102-574-000)
	Human whole blood with RBC lysis	400 µL	<1.5 hrs.	Extracting HMW DNA from human whole blood with RBC lysis (103-377-500)
Animal tissue	Diverse tissue types	2–100 mg	~2.5 hrs.	Extracting HMW DNA from animal tissue (102-574-600)
Insect tissue	Insect whole body or segment	>20 mg	~2.5 hrs.	Extracting HMW DNA extraction from insects (102-377-400)
Plant tissue	Isolated plant nuclei	0.25–5g	~1.5 hrs.[1]	Extracting HMW DNA from plant nuclei (103-378-200)
Mammalian cultured cells	Suspension cell culture	1 x 10^6–5 x 10^6 diploid human cells	~1 hr.	Extracting HMW DNA from cultured suspension cells (103-394-500)
	Adherent cell culture	1 x 10^6–5 x 10^6 diploid human cells	~1 hr.	Extracting HMW DNA from cultured adherent cells (102-573-600)
Cultured bacteria	Gram-negative bacteria	5 x 10^8–5 x 10^9 bacterial cells	~1 hr.	Extracting HMW DNA from Gram-negative bacteria (102-573-800)
	Gram-positive bacteria	5 x 10^8–5 x 10^9 bacterial cells	~1 hr.	Extracting HMW DNA from Gram-positive bacteria (102-573-900)

[1]Upstream plant nuclei prep isolation procedures (e.g., 102-574-900 or 102-574-800) typically take ~3 hours to complete.

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