DNA extraction: Target starting quantities

It's critical to know the extraction efficiency of your extraction method and to accurately estimate the input requirement in order to reach the amounts of genomic DNA (gDNA) and concentrations outlined in the Sample Preparation Guidelines.

The minimum number of input T cells is 1,000. For additional information, see the Sample Preparation Guidelines.

For optimal performance, a gDNA concentration of at least 10 ng/µL is recommended. Submitting gDNA at a concentration less than this level limits our ability to troubleshoot issues.

Target starting quantities

SAMPLE TYPE	T CELLS	B CELLS	
	Single resolution	Survey	Deep
Sorted cells	3,000–1,500,000 cells	3,000–120,000 cells	120,000–300,000 cells
Peripheral blood mononuclear cells (PBMCs)	5,000–5,000,000 cells	50,000–1,500,000 cells	1,500,000–4,500,000 cells
Whole blood	0.25–4 mL	*	*
Bone marrow mononuclear cells (BMMCs)	50,000–6,500,000 cells	50,000–1,500,000 cells	1,500,000–4,500,000 cells
Lymphoid tissue	5–30 mg	5–10 mg	10–20 mg
Non–lymphoid tissue	10–30 mg	10 mg	10–20 mg
Formalin–fixed, paraffin embedded tissue (FFPE)	25-50 um; scrolls should be no more than 10 um thick	5 x 5 micron scrolls	5 x 10 micron scrolls**
Bone marrow aspirate	1 mL	1 mL	1 mL

* Due to low composition of B cells in whole blood, we do not recommend using whole blood as a sample type for most B-cell projects.
** FFPE deep resolution is not appropriate for most projects.

For questions, contact:

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