PBMC Processing for Clinical Trials

Trust Sanguine to manage pre-analytical lab services so you get critical, viable cells how and when you need them

QUALITY

Project Coordinator manages site communication & logistics
Lab stability & temperature monitoring protocols

CONSISTENCY

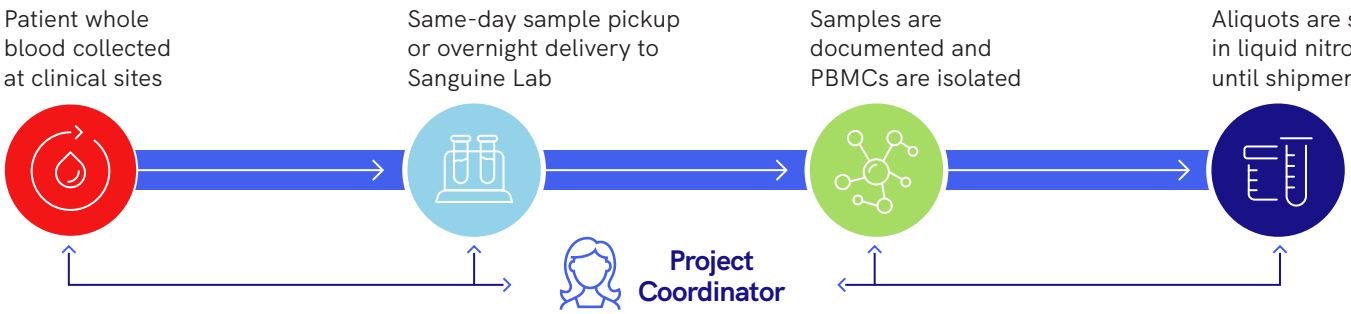
10,000 PBMC samples delivered
Cell viability, recovery, and purity ideal for downstream analysis

FLEXIBILITY

Day-or-night sample accessioning and **same-day** processing from clinical sites

CUSTOMIZATION

Regulatory compliance assured through standard protocols or provided SOPs



As the sentinels of the immune system, peripheral blood mononuclear cells (PBMCs) represent critical barometers of disease and therapy response. Unlocking the clinical biomarker potential of primary PBMCs critically requires the rapid isolation of these precious cells from fresh whole blood to preserve their viability, which remains a bottleneck in therapeutic development.[1]

To facilitate translational and clinical research, Sanguine Biosciences offers PBMC, lymphocyte, and other blood-derived sample isolation, characterization, and storage services. A dedicated Sanguine Project Coordinator manages all the clinical site communication and logistics to ensure seemless delivery of patient whole blood. Samples are processed in our new, fully equipped, 3000+ ft^2 laboratory in San Diego, CA featuring a cloud-based LIMS, as well as disaster backup and contingency.

As the pioneer and leader in patient-centric, prospective, and nationwide human biospecimen procurement, Sanguine understands how streamlining sample accession expedites breakthroughs that benefit both patients and researchers.

An experienced, nimble, and transparent partner, Sanguine strives to be a reliable extension of your team, sharing your urgency in delivering quality sample processing.

Pre-analytical services, including:

- Processing of ≥100 mL blood
- Capacity to process any number of samples
- Special staff training and oversight
- Site communication and chain of command

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Prepare for data analysis with additional sample characterization and processing capabilities, including:

- Human Leukocyte Antigen (HLA) typing
- Diverse menu of CLIA-certified diagnostic tests
- Isolation of T cells, B cells, and/or NK cells
- Serum or plasma isolation from the same blood sample

	Sanguine Standard	Customize*
Study coordination	Dedicated project manager point-person	
Blood collection volume	≤180 mL	
Biosafety	BSL-2	
PBMC isolation method	Density gradient separation	You choose
Cell viability measurement	Fluorescent-based cell counting	
Cell aliquot size	5-10 million cells / mL	You choose
Cryopreservation reagents	DMSO & FBS	You choose
Vein-to-processing time	Typically within 24 hrs	
Storage	Short- or long-term in liquid nitrogen	
Compliance validation	Clinical quality management system	Audit our lab
Shipping	Dry ice; upon request or upon study completion	Cryo-shippers; set interval shipments

**Depending on the protocol, customization may incur additional costs*

Example Publications using PBMCs from Sanguine:

Cell

Profiling SARS-CoV-2 HLA-I peptidome reveals T cell epitopes from out-of-frame ORFs
Potential peptide epitopes not captured by current Covid-19 vaccines elicit robust T cell responses in Covid-19 patients.[2]

nature communications

Checkpoint inhibition through small molecule-induced internalization of programmed death-ligand 1
A novel PD-L1 inhibitor stimulated immune cell responses in donor PBMCs from HBV-positive (T cells) and HBV-vaccinated (B cells) patients.[3]

Need help with patient recruitment?

Ask us how we can help!

[1]Subhashini A et al. (2012) Rapid Isolation of leukocyte subsets from fresh and cryopreserved PBMCs in clinical research. Cryoletters. 33(5):376-384.
[2]Weingarten-Gabbay S et al. (2021) Profiling SARS-CoV-2 HLA-I peptidome reveals T cell epitopes from out-of-frame ORFs. Cell. 184:3962-3980.
[3]Park J-J et al. (2021) Checkpoint inhibition through small molecule-induced internalization of programmed death-ligand 1. Nat. Commun. 12:1222.

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