



A FLEXIBLE APPROACH TO PBMCs

AS CRITICAL COMPONENTS OF THE IMMUNE SYSTEM, Peripheral Blood Mononuclear Cells (PBMCs) are extensively used in research, diagnostics, and therapeutic development.



QPS PBMC CAPABILITIES

QPS has two fully equipped PBMC laboratories with experienced technicians who can perform optimal separation of lymphocytes and peripheral mononuclear cells. PBMC services can be provided as a stand-alone service, or as part of a full-service clinical trial.



Professional and
Experienced Staff



Global Flexibility
& Capacity



Customer
Focus



Preferred Provider
Relationships

UNDERSTANDING PBMCs

Peripheral Blood Mononuclear Cells (PBMCs) are a diverse group of immune cells found in the bloodstream that play a crucial role in the body's immune response. PBMCs include lymphocytes (such as T cells, B cells, and natural killer cells) and monocytes, which are involved in various immune functions, including identifying and destroying pathogens, producing antibodies, and orchestrating immune responses.

PBMCs are often isolated from blood samples in research and clinical settings to study immune function, disease states, or responses to treatments. They are important in fields like immunology, oncology, and infectious disease research.

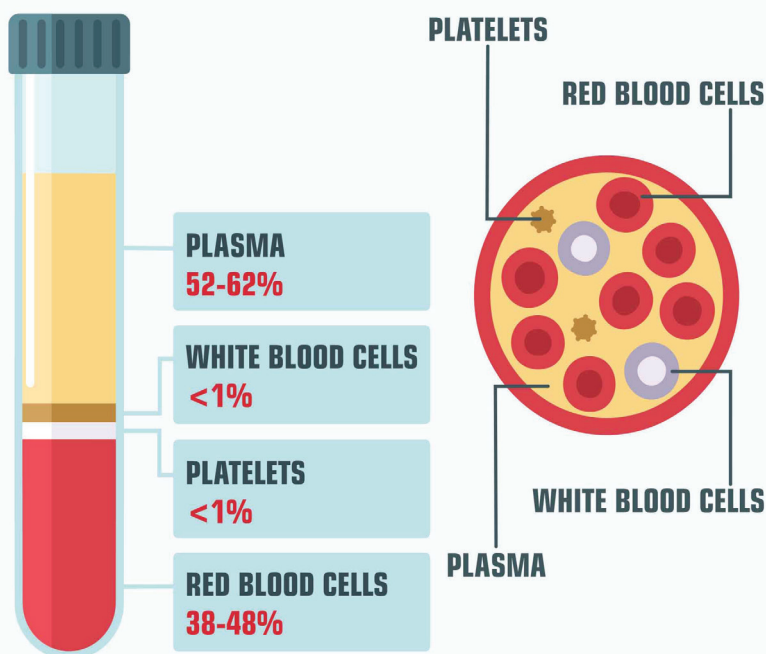
THE ISOLATION PROCESS

The isolation process of PBMCs is typically achieved through density gradient centrifugation, resulting in a layer known as the buffy coat, which is rich in PBMCs¹. The individual blood component composition of PBMCs includes:

- ▶ T Cells: 60-70%
- ▶ Monocytes/Macrophages: 15%
- ▶ Natural Killer Cells: 15%
- ▶ B Cells: 10%



BLOOD STRUCTURE



CLINICAL SIGNIFICANCE

PBMCs are typically used in studies related to immunology, infectious diseases, hematological malignancies, vaccine development, and transplant immunology, as they play a vital role in the body's defense against infections and are involved in both the innate and adaptive immune responses. In clinical trials of new drugs and vaccines, PBMCs are recognized as a valuable tool to gain insight into the cellular immune response. These data from clinical trials are being used as surrogates in clinical trials for the evaluation of vaccines.

QPS state-of-the-art laboratories include:

- ▶ Class II Double-Wide Biosafety Cabinet Hoods
- ▶ Liquid Nitrogen Storage Tanks - Each tank holds over 10,000 PBMC samples for long-term storage, if needed
- ▶ Dual Florescence Automatic Cell Counter
- ▶ -80oC Freezers
- ▶ Centrifuges

QPS PROCEDURE SUMMARY

QPS PBMC services can be provided as a stand-alone service, or as part of a full-service clinical trial. Our experienced technicians perform separation of PBMCs (lymphocytes and peripheral mononuclear cells) at our clinical trial sites, with isolated PBMCs being evaluated and cryopreserved for further analysis. QPS' facilities are certified for whole blood stimulation procedures



SCIENTIFIC LEADERSHIP AND PROVEN RESULTS



Our dedicated, experienced team ensures that all clinical trials conducted in QPS facilities meet timelines and regulatory requirements. QPS provides high quality data along with direct access to our technical staff, regularly scheduled updates in a format that works for you, and prompt and courteous answers to your inquiries at a fair and competitive price.

- ▶ Phase I
- ▶ Phase IIa
- ▶ Clinical Research Services
- ▶ Data Management



QPS IS A GLOBAL CRO WITH LOCATIONS AROUND THE WORLD



BENEFIT FROM THE WORLDWIDE RESOURCES THAT A GLOBAL CONTRACT RESEARCH ORGANIZATION BRINGS

Whether your focus is small molecules, protein biotherapeutics, vaccines, gene therapy or cell therapy, QPS provides a full range of bioanalytical services to support drug development needs from discovery, through clinical development and regulatory filing.



NETWORK LOCATIONS USA / Austria / Australia / Argentina / Belgium / Bosnia / Brazil / Bulgaria / Chile / China / Croatia / Czech Republic / Denmark / France / Finland / Germany / Hungary / India / Italy / Lithuania / Netherlands / Poland / Romania / Serbia / Slovakia / South Africa / South Korea / Spain / Sweden / Taiwan / United Kingdom



**TIME IS OF THE ESSENCE IN DRUG DEVELOPMENT.
CONTACT THE QPS BUSINESS DEVELOPMENT TEAM TODAY!**

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