

PCRopsis™ BCS Nano enriches blood cells and mediates Next Generation Direct PCR™ from whole blood without equipment

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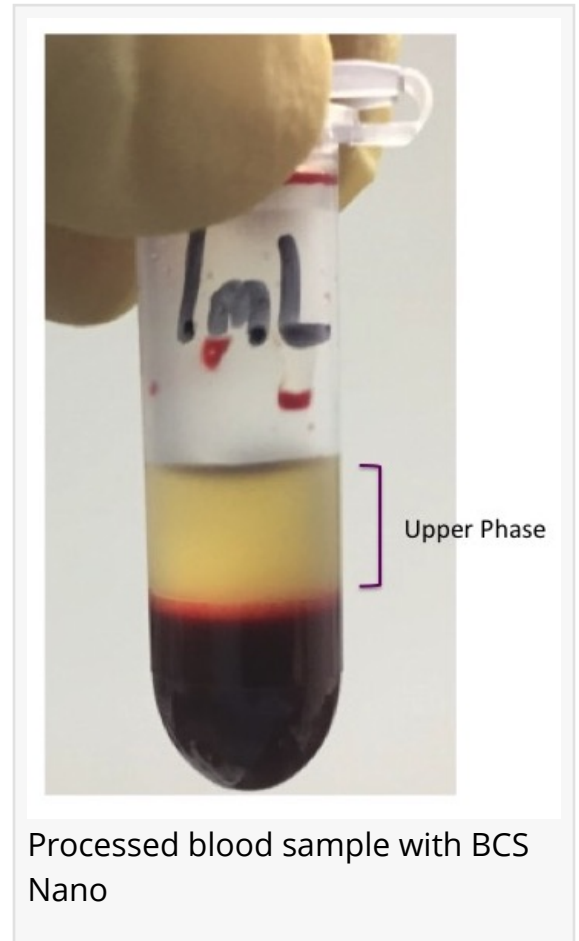
/EINPresswire.com/ -- Entopsis today launched [PCRopsis™ BCS Nano](#), a novel reagent capable of simultaneously enriching for white blood cells (WBC) and sequestering polymerase chain reaction (PCR) inhibitors from whole blood. This reagent allows users to perform PCR tests on whole blood without cell isolation or nucleic acid extraction, and involves no equipment.

Blood is a highly valuable bio-fluid for screening and diagnosing people. However it contains red blood cells (RBC) and other components that limit direct PCR analysis. As such, whole blood normally needs to be processed before PCR testing. This often involves centrifugations, sample transfers, and multiple steps for nucleic acid extraction. PCRopsis™ BCS Nano mediates Next Generation Direct PCR™ from whole blood, without centrifugations, in a matter of ~15 minutes, and involves just a few simple steps.

Whole blood processing with PCRopsis™ BCS Nano:

1. Mix whole blood with PCRopsis™ BCS Nano at a ratio of 10:1 ~ 5:1
2. Let mixture sit at room temperature for ~15 minutes to precipitate RBCs
3. Collect enriched WBCs in the upper phase. This sample can be used directly in downstream PCR applications without nucleic acid extraction.

Importantly, this new approach to blood-based PCR testing is highly compatible with automation, given its simple protocol, and can be adapted for selective depletion of undesired WBCs from whole blood. PCRopsis™ BCS Nano selectively precipitates RBCs. As such, one can cross-link RBCs to undesired cell types (i.e., granulocytes) using tetrameric antibody complexes sold by other companies. This results in undesired cells precipitating along side RBCs, producing an enrichment of desired cells in the upper phase.



“PCRopsis™ BCS Nano expands our Next Gen Direct PCR™ suite of reagents into whole blood PCR testing and offers our clients new opportunities.” said Abhignyan Nagesetti, Ph.D., Head of Manufacturing at Entopsis.

“Our R&D team does it again with the launch of PCRopsis™ BCS Nano; a simple, fast, and flexible means of performing PCR directly from whole blood.”, said Obdulio Piloto, Ph.D., CEO of Entopsis.

About Entopsis

Entopsis was founded in 2011. It has researched and developed a number of proprietary platforms in the areas of material science, nanotechnology,

chemistry, and machine learning. The company utilizes this unique know-how to solve key scientific problems, particularly for medical diagnostics. Entopsis is predominantly focused in the areas of oncology and infectious diseases, and explores new areas lacking suitable solutions. To date, the company has launched three efforts: 1) OpsiDx™, a urine-based universal disease

detection platform, 2) PCRopsis™, functionally superior Next Gen Direct PCR™ technologies for clinical applications, and 3) PlantOpsis™, direct PCR and other technologies to support the analysis of plants. For more information, please visit www.Entopsis.com, www.PCRopsis.com and www.PlantOpsis.com



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