



BIOTECH SUPPORT GROUP
Sample Prep that Matters

News Release

HemogloBind™ Cited in Comparison Proteomics Study of Covid-19 Patients in Peripheral Blood – The Barometer of the Immune System

MONMOUTH JUNCTION, NJ, February 16, 2021 -- Biotech Support Group reports on a journal article describing the simplicity and efficiency of their HemogloBind™ sample preparation technology for deep and quantitative LC-MS proteome and phosphoproteome analysis. The study provides a comparison of SARS-CoV-2 positive ICU patients with age- and sex-matched SARS-CoV-2 negative ICU patients and healthy individuals, using peripheral blood derived mononuclear cells (PBMCs). The citation is:



Kaneko, Tomonori, et al. "[System-wide hematopoietic and immune signaling aberrations in COVID-19 revealed by deep proteome and phosphoproteome analysis.](#)" Research Square preprint (2021).

The author's goals were to gain systems-level insights into SARS-CoV-2 pathogenesis. For that, they compared the blood proteome and phosphoproteome of ICU patients with or without SARS-CoV-2 infection, and healthy control subjects by quantitative mass spectrometry. To remove the highly abundant amount of Hemoglobin, the article states "Hemoglobin was depleted from PBMC whole cell lysate samples according to HemogloBind™ manufacturer instruction with modifications. Briefly, 10 ml HemogloBind beads were added to 1 ml whole cell lysate suspended in 20mM HEPES buffer pH 6.5 containing 1mM sodium orthovanadate, 10mM NaF, and the mixture was vortexed for 10 min at room temperature." The authors conclude that severe COVID-19 is marked with a highly active adaptive immune response, compromised innate immune response, and imbalance between antiviral and proinflammatory responses.

"It is very rewarding to have research on Covid-19 patients using HemogloBind™, for in depth proteomic analysis of blood cells. Using LC-MS quantitative measurements, the study finds that dysregulation within the immune response contributes to severe disease and offers several important pathways to consider for therapeutic modulation." states Swapan Roy, Ph.D., President and Founder of Biotech Support Group.



BIOTECH **SUPPORT** GROUP
Sample Prep that Matters

For more information visit: HemogloBind™ product page, at <https://www.biotechsupportgroup.com/HemogloBind-Hemoglobin-Depletion-From-Hemolyzed-p/h0145.htm>

For more information on all of our products to help investigate Covid-19, visit: <https://www.biotechsupportgroup.com/Articles.asp?ID=585>

About Biotech Support Group LLC

Converging with cultural and technological disruptions forthcoming in healthcare, Biotech Support Group develops methods for cost effective and efficient sample prep essential for these expanding markets. Following a tiered business strategy, the company continues its growth in the consumable research products area supporting the rapidly expanding installation of LC-MS instrument and computational infrastructure. For this market, key products include: AlbuVoid™ and AlbuSorb™ for albumin depletion, Cleanascite™ for lipid adsorption, HemogloBind™ and HemoVoid™ for hemoglobin removal, and NuGel™ for functional proteomics. From these innovations, the company has acquired knowledgebase and biomarker intellectual property assets that support discoveries of protein markers from blood, with special emphasis on early detection and personalized medical decisions for cancer patients. For more information, go to <http://www.biotechsupportgroup.com>.

For Business Development, contact: Matthew Kuruc 732-274-2866, mku-ruc@biotechsupportgroup.com