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Sample Prep that Matters

News Release

Cleanascite™ Employed to Investigate Central Nervous System (CNS) Cell Response

MONMOUTH JUNCTION, NJ, February 20, 2021 -- Biotech Support Group reports on an article, describing the simplicity and efficiency of their lipid clearance sample preparation technology for studying a microglial cell line's dependency on the availability of lipids in the cell culture environment. The citation is:



"Miller-Rhodes, Patrick, and Harris A. Gelbard. [The Cell Culture Environment Regulates the Transcription Factor MafB in BV-2 Microglia.](#)" Matters 7.1 (2021): e202010000001.

Microglia experience dramatic molecular and functional changes when transferred from the central nervous system (CNS) to a cell culture environment. This investigation explores lipid dependency as CNS-specific microenvironmental cues, that dictate the gene-regulatory networks specified by master regulator transcription factors such as V-maf musculoaponeurotic fibrosarcoma oncogene homolog B (MafB). To support this analysis, the authors evaluated serum lipid-depletion, stating "Lipids were depleted from FBS using a

Cleanascite lipid removal agent (Biotech Support Group, cat no. X2555-10). Cleanascite reagent was thoroughly resuspended before mixing with FBS at a volume ratio of 1:4 (Cleanascite: FBS). The mixture was gently and periodically inverted for 10 min to facilitate lipid binding. The solution was centrifuged at 1,000 x g for 15 min to pellet the removal agent. The resulting supernatant was used for experiments." The report concludes that depletion of lipids, either by serum deprivation or the use of lipid-depleted serum, reduced MafB protein levels in BV-2 microglial cells. In aggregate, the data suggest that serum exposure regulates the transcription factor MafB in BV-2 cells through direct and indirect mechanisms.

"We have over twenty references showing that Cleanascite™ helped to identify a characteristic feature of cell response. As Cleanascite™ is an aqueous suspension



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product without harmful solvents, one can use it to challenge cells for responsiveness. This ultimately helps researchers decide whether or not lipids, or factors interacting with lipids, impart phenotypic changes to cells." states Swapan Roy, Ph.D., President and Founder of Biotech Support Group.

To download whitepaper entitled "**Cleanascite™ - Lipid Removal and Cell Response Applications**", visit:

<https://www.biotechsupportgroup.com/v/vspfiles/templates/257/pdf/Cleanascite-Cell-Response-Reference-Applications-090320.pdf>

For more information visit: **Cleanascite™** Lipid Removal Reagent and Clarification, at

<http://www.biotechsupportgroup.com/Cleanascite-Lipid-Removal-Reagent-p/x2555.htm>

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>.

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