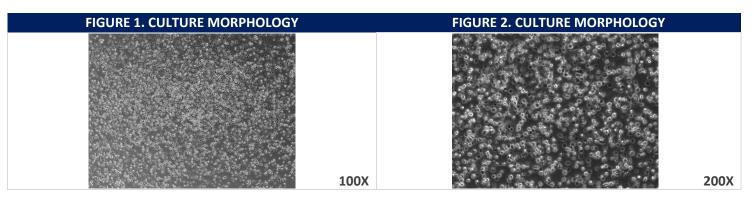
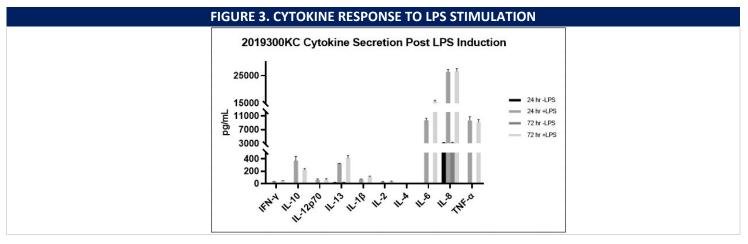


CERTIFICATE OF ANALYSIS

CELL TYPE:	Human Kupffer Cells	LOT NUMBER: 2019300	
PRODUCT CODE:	NPC-AD-KC		
STORAGE:	Cryopreserved in Vapor Phase Liquid Nitrogen	(-135°C to -190°C)	

	POST THAW RESULTS	QUALITY CONTROL RESULTS			
Average Viability	Average Viable Cells/Vial X 10 ⁶	Average Cell Size	Characteristic Morphology	Cytokine Response	
72 %	0.8	10.5 microns	See Figures 1 & 2	See Figure 3	





CYTOKINE:	IFN γ	IL 10	IL 12p70	IL 13	IL 1β	IL 2	IL 4	IL 6	IL 8	τΝF α
24 HR	58.63	286.45	24.20	14.96	27.25	40.65	33.72	3741.19	8.25	1332.33
72 HR	36.90	150.19	12.94	18.04	38.78	32.40	38.19	5067.16	8.24	1110.28

Values indicate fold change above no LPS control

Results above determined by following LifeNet Health's Kupffer Cell care and handling protocols.

Signature:	Varti	_{Date:} 01-11-2021
Signature:	Joel Cluye	Date: 01-11-2021

Authorization was obtained from the donor or the donor's legal next of kin for use of the tissue and its derivatives for research purposes. Caution: The user should treat all human cells as potential pathogens. Wear protective clothing and eyewear. Practice appropriate disposal techniques for potentially pathogenic or biohazardous materials. For research use only. Not intended for human or animal therapeutic or diagnostic use.