

Synthesis, Characterization, and Biological Verification of Asialoglycoprotein Receptor-Targeted Lipopolysaccharides-Encapsulated PLGA Nanoparticles for Establishment of Liver Fibrosis Animal Model

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■ Supplementary Materials

Table S1. Top 100 significant signaling pathways found in both free LPS- and ALPNDs-treated groups based on NGS analysis.

Rank	Molecular Pathways	-log(p-value)	Ratio
1	Neuroinflammation Signaling Pathway	21.9	0.202
2	Pathogen Induced Cytokine Storm Signaling Pathway	19.5	0.178
3	Leukocyte Extravasation Signaling	16.6	0.223
4	Phagosome Formation	14.9	0.124
5	Macrophage Alternative Activation Signaling Pathway	14.3	0.203
6	TREM1 Signaling	13.9	0.325
7	IL-12 Signaling and Production in Macrophages	13.9	0.186
8	PD-1, PD-L1 cancer immunotherapy pathway	12.9	0.262
9	Fcγ Receptor-mediated Phagocytosis in Macrophages and Monocytes	11.7	0.266
10	MSP-ROn Signaling In Macrophages Pathway	10.8	0.227
11	Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses	10.7	0.199
12	Th1 Pathway	10.6	0.221
13	Neutrophil Extracellular Trap Signaling Pathway	10.4	0.131
14	Atherosclerosis Signaling	10.4	0.211
15	Role Of Osteoclasts In Rheumatoid Arthritis Signaling Pathway	10.3	0.146
16	Th1 and Th2 Activation Pathway	10.3	0.186
17	S100 Family Signaling Pathway	10.2	0.105
18	IL-10 Signaling	9.51	0.188
19	Colorectal Cancer Metastasis Signaling	9.44	0.148
20	Th2 Pathway	9.36	0.197
21	Multiple Sclerosis Signaling Pathway	9.12	0.158
22	Production of Nitric Oxide and Reactive Oxygen Species in Macrophages	9.07	0.168
23	IL-8 Signaling	8.6	0.157
24	Endothelin-1 Signaling	8.3	0.16
25	Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	7.83	0.127
26	Hepatic Fibrosis Signaling Pathway	7.76	0.116

27	Eicosanoid Signaling	7.54	0.243
28	Granulocyte Adhesion and Diapedesis	7.4	0.153
29	Tumor Microenvironment Pathway	7.36	0.156
30	Crosstalk between Dendritic Cells and Natural Killer Cells	7.21	0.209
31	Axonal Guidance Signaling	7.17	0.106
32	Pyroptosis Signaling Pathway	7.05	0.204
33	HIF1 α Signaling	7.02	0.144
34	LXR/RXR Activation	6.96	0.179
35	Natural Killer Cell Signaling	6.95	0.146
36	G-Protein Coupled Receptor Signaling	6.93	0.0953
37	Sperm Motility	6.93	0.132
38	Macrophage Classical Activation Signaling Pathway	6.84	0.148
39	Role of JAK1 and JAK3 in γ c Cytokine Signaling	6.84	0.232
40	Phospholipases	6.84	0.232
41	Toll-like Receptor Signaling	6.8	0.218
42	Glucocorticoid Receptor Signaling	6.72	0.0997
43	Role of Osteoblasts, Osteoclasts and Chondrocytes in Rheumatoid Arthritis	6.64	0.136
44	Signaling by Rho Family GTPases	6.53	0.127
45	Agranulocyte Adhesion and Diapedesis	6.4	0.138
46	PI3K/AKT Signaling	6.32	0.14
47	MSP-RON Signaling Pathway	6.29	0.241
48	Antioxidant Action of Vitamin C	6.25	0.175
49	Molecular Mechanisms of Cancer	6.13	0.104
50	Fc Epsilon RI Signaling	6	0.169
51	Cardiac Hypertrophy Signaling (Enhanced)	5.94	0.0978
52	Antigen Presentation Pathway	5.79	0.282
53	ID1 Signaling Pathway	5.77	0.134
54	IL-9 Signaling	5.37	0.286
55	Role Of Chondrocytes In Rheumatoid Arthritis Signaling Pathway	5.33	0.149
56	CDX Gastrointestinal Cancer Signaling Pathway	5.23	0.129
57	ERK/MAPK Signaling	5.21	0.126
58	Hepatic Cholestasis	5.19	0.131
59	CREB Signaling in Neurons	5.14	0.0906
60	Ceramide Signaling	5.14	0.176
61	Thrombopoietin Signaling	5.07	0.206
62	Hepatic Fibrosis / Hepatic Stellate Cell Activation	5.06	0.129
63	VEGF Family Ligand-Receptor Interactions	4.94	0.179
64	iNOS Signaling	4.93	0.234
65	GP6 Signaling Pathway	4.91	0.15
66	Osteoarthritis Pathway	4.9	0.119
67	Oxytocin In Brain Signaling Pathway	4.87	0.126
68	Chronic Myeloid Leukemia Signaling	4.81	0.112
69	Breast Cancer Regulation by Stathmin1	4.79	0.0892
70	NOD1/2 Signaling Pathway	4.78	0.127
71	Erythropoietin Signaling Pathway	4.77	0.13
72	Sphingosine-1-phosphate Signaling	4.7	0.15
73	p38 MAPK Signaling	4.7	0.15

74	IL-7 Signaling Pathway	4.68	0.179
75	Regulation Of The Epithelial Mesenchymal Transition By Growth Factors Pathway	4.67	0.125
76	Primary Immunodeficiency Signaling	4.66	0.203
77	Actin Cytoskeleton Signaling	4.63	0.115
78	IL-3 Signaling	4.61	0.177
79	RHOGDI Signaling	4.57	0.118
80	Gαq Signaling	4.56	0.129
81	IL-15 Production	4.56	0.146
82	Inflammasome pathway	4.55	0.35
83	GM-CSF Signaling	4.55	0.186
84	RAC Signaling	4.44	0.139
85	MIF Regulation of Innate Immunity	4.41	0.227
86	IL-17 Signaling	4.39	0.123
87	Role of Tissue Factor in Cancer	4.35	0.147
88	Complement System	4.28	0.243
89	Virus Entry via Endocytic Pathways	4.25	0.144
90	Paxillin Signaling	4.23	0.15
91	Caveolar-mediated Endocytosis Signaling	4.22	0.173
92	HMGB1 Signaling	4.2	0.126
93	fMLP Signaling in Neutrophils	4.19	0.137
94	CXCR4 Signaling	4.16	0.125
95	Leptin Signaling in Obesity	4.16	0.171
96	GDNF Family Ligand-Receptor Interactions	4.16	0.171
97	Macropinocytosis Signaling	4.16	0.171
98	P2Y Purigenic Receptor Signaling Pathway	4.1	0.135
99	VEGF Signaling	4.07	0.152
100	STAT3 Pathway	4.01	0.133