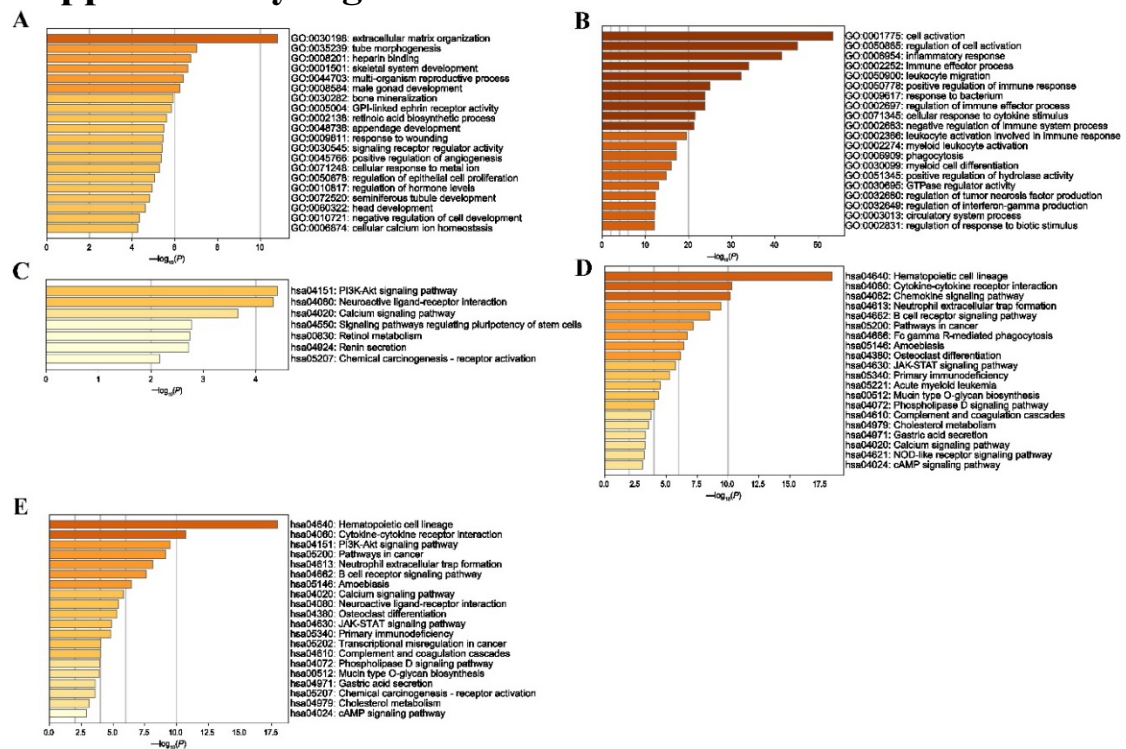
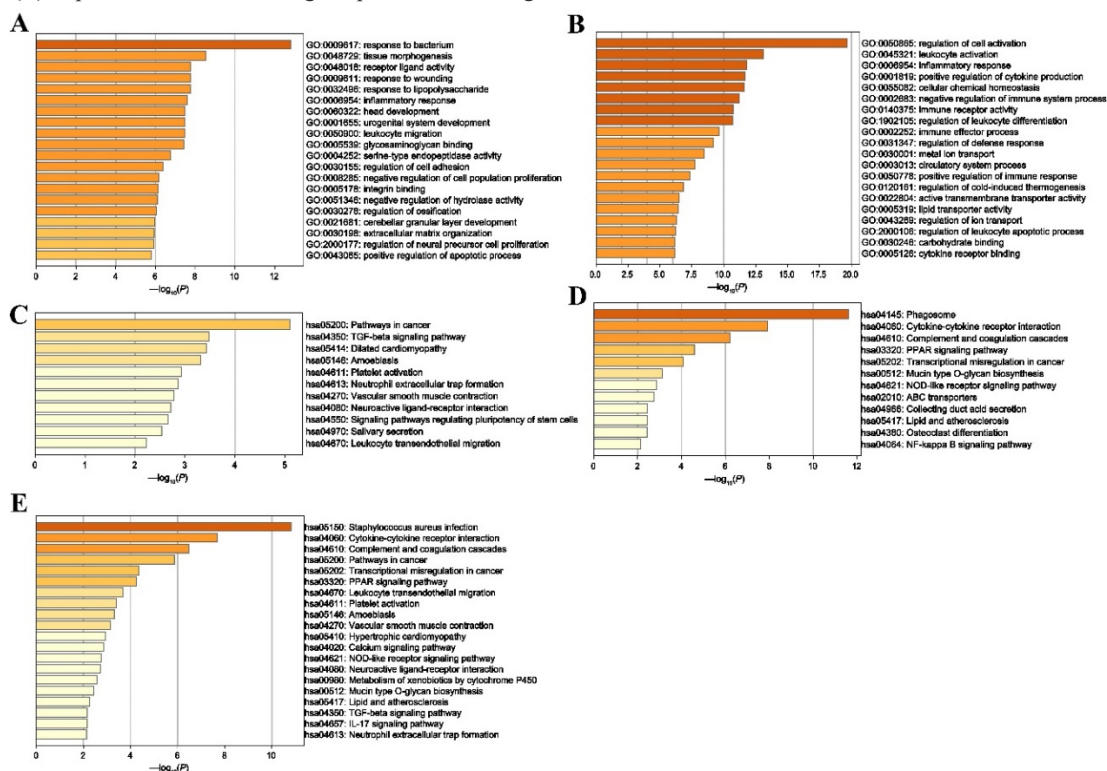


SUPPLEMENTARY MATERIAL- Figs and Tables

Supplementary Figs

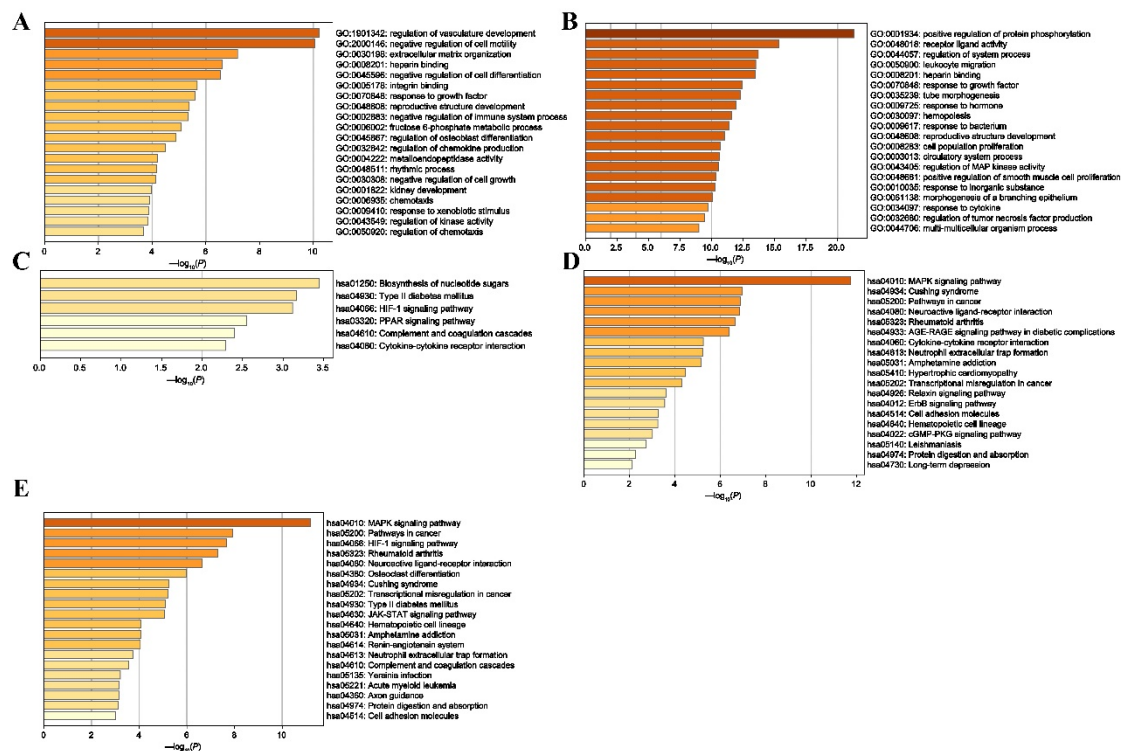


Supplementary Fig.1 The KEGG or GO Analysis of M1 and M2. (A) Top enriched GO biological processes of up-regulated genes. (B) Top enriched GO biological processes of down-regulated genes. (C) Top enriched KEGG biological processes of up-regulated genes. (D) Top enriched KEGG biological processes of down-regulated genes. (E) Top enriched KEGG biological processes of 730 genes.



Supplementary Fig.2 The KEGG or GO Analysis of M1_IFN γ +LPS and M1_GM-CSF. (A) Top enriched GO biological processes of up-regulated genes. (B) Top enriched GO biological processes of down-regulated genes. (C) Top enriched KEGG biological processes of up-regulated genes. (D) Top enriched KEGG biological processes of down-regulated genes. (E) Top enriched KEGG biological processes of 730 genes.

Top enriched KEGG biological processes of up-regulated genes. **(D)** Top enriched KEGG biological processes of down-regulated genes. **(E)** Top enriched KEGG biological processes of 598 genes.



Supplementary Fig.3 The KEGG or GO Analysis of M2_IL4+IL10 and M2_M-CSF. (A) Top enriched GO biological processes of up-regulated genes. **(B)** Top enriched GO biological processes of down-regulated genes; **(C)** Top enriched KEGG biological processes of up-regulated genes. **(D)** Top enriched KEGG biological processes of down-regulated genes. **(E)** Top enriched KEGG biological processes of 332 genes.

Supplementary tables

S1 Table. Data output quality list

	Raw Reads	Clean Reads	Raw Base(G)	Clean Base(G)	Effective Rate (%)	Error Rate (%)	Q20(%)	Q30(%)	GC Content (%)
M1_IFN γ +LPS.3	55,816,079	54,627,974	16.74	16.39	97.87	0.04	97.3	91.98	53.09
M2_M-CSF.2	49,465,538	48,351,626	14.84	14.51	97.75	0.04	97.01	91.29	53.91
M1_IFN γ +LPS.1	75,618,946	73,922,737	22.69	22.18	97.76	0.04	97.23	92.13	54.19
M2_M-CSF.1	51,587,689	50,401,680	15.48	15.12	97.7	0.04	97.18	91.7	54.02
M2_M-CSF.4	49,014,356	48,379,317	14.7	14.51	98.7	0.04	96.56	90.06	53.42
M1_IFN γ +LPS.2	55,594,140	54,880,707	16.68	16.46	98.72	0.04	97.17	91.65	53.43
M1_GM-CSF.3	41,956,829	41,034,198	12.59	12.31	97.8	0.04	96.96	91.52	53.39
M1_IFN γ +LPS.4	56,583,524	55,406,603	16.98	16.62	97.92	0.04	97.38	92.24	53.66
M2_IL4+IL10.2	74,606,423	73,282,646	22.38	21.98	98.23	0.04	97.08	91.41	52.97
M1_GM-CSF.4	67,209,133	65,873,791	20.16	19.76	98.01	0.04	97.41	92.53	52.85
M1_GM-CSF.1	53,987,356	53,243,421	16.2	15.97	98.62	0.04	96.88	91.27	53.53
M2_IL4+IL10.1	61,546,698	60,779,788	18.46	18.23	98.75	0.04	96.86	90.85	54.12
M2_IL4+IL10.4	67,730,073	66,381,289	20.32	19.91	98.01	0.04	96.53	89.94	54.39
M1_GM-CSF.2	43,257,600	42,648,637	12.98	12.79	98.59	0.04	97.22	92.06	52.02

S2 Table. The observed marker genes of M1 and M2 macrophages

Gene	Cell Marker	References	Gene	Cell Marker	References
PADI4	M1 macrophage	(Cheng et al., 2021a)	HLA-DRA	M1 macrophage	(Camiolo et al., 2020; Wu et al., 2021b)
FCRL3	M1 macrophage	(Quan et al., 2021)	DLL4	M1 macrophage	(Pagie et al., 2018)
JAK3	M1 macrophage	(Quero et al., 2020)	IRF5	M1 macrophage	(Lv et al., 2021; Huang et al., 2022)
CXCR4	M1 macrophage	(Fang et al., 2021)	PTPRO	M1 macrophage	(Dong et al., 2021)
IL10RA	M1 macrophage	(Acosta et al., 2019)	MFAP4	M2 macrophage	(Huang et al., 2022)
TLR8	M1 macrophage	(Wu et al., 2021b)	PTH1R	M2 macrophage	(Zhang et al., 2021)
MARCO	M1 macrophage	(Talamonti et al., 2017; Sato et al., 2018)	CLDN11	M2 macrophage	(van den Bossche et al., 2012)
TLR1	M1 macrophage	(Müller et al., 2017)	AGTR1	M2 macrophage	(Cui et al., 2021)
TREM1	M1 macrophage	(Wu et al., 2021a)	COL9A3	M2 macrophage	(Liu et al., 2021)
CLEC7A	M1 macrophage	(Yan et al., 2021)	EEF1A2	M2 macrophage	(Lv et al., 2021; Tan et al., 2021)
TLR2	M1 macrophage	(Müller et al., 2017)	CRABP2	M2 macrophage	(Yan et al., 2020)
CLEC4E	M1 macrophage	(Inoue, 2017)	FGFR3	M2 macrophage	(Huang et al., 2022)
TRPM2	M1 macrophage	(Beceiro et al., 2017)	PTX3	M2 macrophage	(Huang et al., 2022)
S100A8	M1 macrophage	(LA et al., 2017)	CCL11	M2 macrophage	(Chen et al., 2019)
SLAMF1	M1 macrophage	(Al-Rubaie et al., 2018)	ALDH1A1	M2 macrophage	(Oliveira et al., 2010)
S100A9	M1 macrophage	(LA et al., 2017)	ENHO	M2 macrophage	(Sato et al., 2018)
CASP1	M1 macrophage	(Awad et al., 2017)	MATN2	M2 macrophage	(Wang et al., 2019a)
IRF8	M1 macrophage	(Guo et al., 2016)	ANGPT2	M2 macrophage	(Wu et al., 2017)
CD68	M1 macrophage	(Shapouri-Moghaddam et al., 2018)	HMOX1	M2 macrophage	(Seneviratne et al., 2021)
IL27	M1 macrophage	(Al-Rubaie et al., 2018; Chiba et al., 2018)	IL1RL1	M2 macrophage	(Wang et al., 2019b)
MYO1F	M1 macrophage	(Song et al., 2021)	CYP1A1	M2 macrophage	(Cui et al., 2020)
IL7R	M1 macrophage	(Joerink et al., 2011)	CD5L	M2 macrophage	(Sanjurjo et al., 2018)
INPP5D	M1 macrophage	(Jablonski et al., 2016)	POSTN	M2 macrophage	(Binnemars-Postma et al., 2018)
CCR7	M1 macrophage	(Joerink et al., 2011; Cheng et al., 2021b)	CCN3	M2 macrophage	(Chen et al., 2014)
VENTX	M1 macrophage	(Le et al., 2018)			

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