

**Supplementary Table 3: Complete of the transcripts in MPs related to immune regulation.
RPKM (Reads Per Kilobase Million)**

Phagosome-related genes				Antigen processing and presentation-related genes				Inflammatory response-associated genes				Anti-inflammatory response-associated genes			
identification	IS	caput_corpus	CAUDA	identification	IS	caput_corpus	CAUDA	identification	IS	caput_corpus	CAUDA	identification	IS	caput_corpus	CAUDA
<i>Mrc1</i>	127.366875	111.048758	102.145641	<i>Ctsb</i>	4036.72846	2597.87028	2225.18817	<i>Ccl12</i>	924.670427	651.045623	348.733336	<i>Apoe</i>	17990.41234	8190.068813	4064.50837
<i>Tcirg1</i>	137.902308	96.8423002	88.5278181	<i>Ctsb</i>	783.253876	609.121107	476.108608	<i>Cx3cr1</i>	211.978588	112.210422	83.560502	<i>Clqa</i>	3270.882108	2363.784642	1719.562215
<i>Ncf1</i>	114.632025	87.8276378	81.4682971	<i>Canx</i>	106.43008	100.464454	95.9882881	<i>Cer1</i>	113.057803	64.2523081	79.2481254	<i>Tnfaip8l2</i>	199.9033188	166.6959743	185.3790973
<i>Ilgam</i>	93.925217	76.648355	80.503657	<i>H2-M3</i>	97.9054631	92.6961318	85.2720458	<i>Cer5</i>	91.1363714	76.433713	62.200445	<i>Slc11a1</i>	127.2960616	86.43605268	60.16488263
<i>Ncf4</i>	81.8133862	69.7686945	78.3596314	<i>Ctsl</i>	138.890718	88.9816164	48.0123945	<i>Ifngr2</i>	90.6953755	76.9269976	63.6897186	<i>Lgals9</i>	119.7132048	86.67148964	89.4775361
<i>Cd36</i>	113.457961	85.6937076	74.7304802	<i>Lgmn</i>	597.361668	357.979143	299.416639	<i>Ifnar2</i>	80.6036659	69.5228485	54.2870164	<i>Il10ra</i>	108.0288058	104.2612238	94.39649923
<i>Lamp2</i>	71.5111728	62.1505886	49.0663645	<i>Hspa5</i>	293.380389	279.51018	257.68297	<i>Il1a</i>	68.5751131	39.7163231	19.6627852	<i>Il10rb</i>	93.96111095	73.6656635	60.3255838
<i>Vamp3</i>	47.1538091	41.3592173	43.3154723	<i>Pdia3</i>	234.387694	225.465141	214.593541	<i>Cxcl10</i>	48.7577473	34.0386428	17.6244638	<i>Tgfb1</i>	90.39336287	42.28978512	23.52817377
<i>Atp6v1c1</i>	59.6379331	44.021912	43.0842671	<i>Tap2</i>	36.7877352	36.9405411	35.7065737	<i>Ifnar1</i>	48.1756842	43.1296598	38.5613583	<i>Il4ra</i>	77.11401192	60.9634694	50.74269309
<i>Irgb5</i>	163.615276	67.9732613	29.5850503	<i>Hspa1b</i>	40.1123845	294.717819	151.143074	<i>Cxcl2</i>	34.0654497	10.7899609	12.5817116	<i>Tgfb2</i>	76.14066554	53.09421967	43.32963467
<i>Atp6v1g1</i>	63.5385631	60.3816951	62.5365247	<i>B2m</i>	5268.08362	5633.20491	4633.54226	<i>Tnfrsf11a</i>	33.200999	23.836193	28.0384188	<i>Il21r</i>	51.99566947	45.44140119	29.32759025
<i>Hgs</i>	27.9002207	25.9770457	21.4880295	<i>Hsp90ab1</i>	160.799799	228.948718	213.186468	<i>Cxcl14</i>	30.8818463	15.1660251	7.38488296	<i>Cd82</i>	49.99696076	45.60979995	46.08208928
<i>Atp6v1d</i>	22.7942899	19.4956409	22.2613636	<i>Calr</i>	211.532246	214.579534	203.301724	<i>Cer11l</i>	25.0554656	14.746873	14.7367344	<i>Il18bp</i>	40.60345266	18.28893139	8.794121029
<i>Lamp1</i>	643.311043	481.724763	471.528646	<i>Tapbp</i>	157.98126	171.196326	162.145565	<i>Il16</i>	16.1927683	14.7829599	14.6632215	<i>Lgals8</i>	18.41162197	17.71994486	14.83854764
<i>Atp6v0b</i>	204.574392	179.548153	161.236506	<i>Hspa1a</i>	49.7851693	294.805374	154.069106	<i>Il15ra</i>	7.66490392	6.87002739	7.15580643	<i>Cd274</i>	8.209590977	6.675038249	7.856151928
<i>Tr2</i>	133.089398	130.586339	112.011783	<i>H2-Q6</i>	37.8906701	64.7938852	57.9895775	<i>Il27</i>	4.92126451	3.35300316	2.32119132	<i>Il1r12</i>	5.31797882	1.802350935	0.735408034
<i>Atp6ap1</i>	156.309027	122.895411	127.073791	<i>Hspa8</i>	83.2148455	112.414743	94.0688977	<i>Cxcl1</i>	3.75555676	2.21894901	1.3645038	<i>Zfp36</i>	1244.703305	2102.650576	1997.29728
<i>Atp6v1f</i>	68.7466647	78.2068493	75.7076032	<i>Psm2</i>	42.8213962	47.7656023	45.3842117	<i>Ifnb1</i>	1.7090064	0.31033618	0.18242737	<i>Cd14</i>	525.518379	578.4871213	505.0518226
<i>Atp6v0d1</i>	48.7215627	50.6342122	48.7340236	<i>Hsp90aa1</i>	14.1388772	44.6633794	33.8723777	<i>Cxcl16</i>	188.499087	115.214802	83.6997359	<i>Fcgr2b</i>	135.028252	160.6387578	142.8804204
<i>Dync11l1</i>	23.5588405	28.8088289	28.5427716	<i>H2-K1</i>	721.163848	933.393411	949.403528	<i>Cxcr6</i>	3.41054952	3.20722579	1.79848794	<i>Socs3</i>	99.7061789	116.0483933	71.29510021
<i>Cd14</i>	525.518379	578.487121	505.051823	<i>H2-T23</i>	93.8951376	130.696298	129.476306	<i>Ccl3</i>	731.341012	981.528114	886.598915	<i>Lgals3bp</i>	96.82065048	99.43763169	76.78845121
<i>Fcgr2b</i>	135.028252	160.638758	142.88042	<i>H2-Oa</i>	32.1484236	88.0557506	88.6291238	<i>Ccl4</i>	692.738837	1198.28889	1018.00619	<i>Tnfrsf1b</i>	93.07097975	102.6723054	94.87916255
<i>Atp6v1e1</i>	114.400539	130.865391	132.015813	<i>Cd74</i>	22099.8265	32124.9658	36946.1548	<i>Ccl8</i>	282.297641	526.797384	207.864615	<i>Tgfb1</i>	62.25421986	77.87419553	54.00714944
<i>Irgb1</i>	115.581956	128.996255	128.655908	<i>H2-Eb1</i>	5310.88453	8563.99524	9936.89837	<i>Il1b</i>	236.787888	306.223209	285.230139	<i>Pparg</i>	12.50313079	20.89845865	19.5468762
<i>Actb</i>	1664.74347	2567.13794	2845.75471	<i>H2-Ab1</i>	5164.62778	8336.21641	9629.53874	<i>Ccl7</i>	187.024287	350.128223	323.230346	<i>Il10</i>	3.049050669	3.325476033	1.416485799
<i>Cyba</i>	624.700619	704.326416	816.185122	<i>H2-Aa</i>	3684.65463	5727.01861	6772.55627	<i>Ifngr1</i>	185.996752	216.62996	216.505215	<i>Ido1</i>	0.708731887	3.366907219	0.123438952
<i>Coro1a</i>	457.05697	549.280316	705.639628	<i>H2-D1</i>	768.427455	1057.54805	1250.34957	<i>Ccl2</i>	104.914983	173.32479	148.16696	<i>Tgfb2</i>	224.2375889	180.0613149	231.7947512
<i>Irgb2</i>	199.133277	239.054976	287.542717	<i>H2-DMa</i>	427.451412	590.041698	691.720916	<i>Tnfrsf1b</i>	93.3741861	102.623819	95.5127038	<i>Cd52</i>	437.0739405	587.1558382	676.9824748
<i>Clec7a</i>	257.152175	256.338928	284.246743	<i>H2-DMb1</i>	407.722609	530.654804	691.433375	<i>Cer12</i>	90.1912546	92.8140948	78.6596361	<i>Ndfip1</i>	265.272254	277.6833035	309.9403083
<i>Cybb</i>	216.529968	206.239071	217.158416	<i>Irf30</i>	253.417096	384.168186	428.262538	<i>Tnfrsf1a</i>	87.4593345	100.974813	93.6702212	<i>Lgals1</i>	103.06557	205.4936128	312.1741052
<i>Stx7</i>	152.649251	159.797688	181.061978	<i>Psm1</i>	135.20347	144.87172	155.474755	<i>Ccl5</i>	57.8040763	101.724094	69.7555111	<i>Il13ra1</i>	54.47372553	54.89010787	55.87596717
<i>Rac1</i>	139.178019	146.796526	149.969319	<i>H2-DMb2</i>	49.6844778	122.100678	151.951987	<i>Il18</i>	40.3518171	46.2650389	39.553308	<i>Il3ra</i>	8.659809008	17.9353633	21.19983951
<i>Tubb6</i>	38.0176354	57.7926407	109.785224	<i>Klra1</i>	39.9714812	97.1240086	144.121164	<i>Tnfrsf21</i>	38.4653772	43.6146107	40.0628183	<i>Il4il</i>	7.411274968	12.40068625	13.26677011
<i>Atp6v1h</i>	48.6857454	46.364905	60.504357	<i>Tap1</i>	48.4652303	59.4164954	62.8135256	<i>Il15</i>	32.9234464	33.4658894	29.6382288	<i>Cd24a</i>	6.694602489	22.51539477	36.47439352
<i>Ncf2</i>	45.1272304	51.6758376	52.7325385	<i>Ciita</i>	34.1332777	50.7165346	55.7744152	<i>Cxcr3</i>	13.8928243	19.8565463	19.0553013				
<i>M6pr</i>	50.8167013	48.7132409	51.2364923	<i>H2-K2</i>	30.9843774	42.6996546	52.2773697	<i>Cxcr4</i>	11.907725	18.2909482	10.1966661				
<i>Tubb2a</i>	35.4876214	41.0071395	47.8718435	<i>Psm3</i>	39.3746072	41.94684	51.4411668	<i>Ccl24</i>	10.91721	34.6449236	31.2820443				
<i>Atp6v1b2</i>	42.8870484	42.4082184	46.596113	<i>Tnf</i>	24.6534966	32.3925431	35.0908527	<i>Cxcl9</i>	5.38420603	6.61657874	3.34341862				
<i>Rab5a</i>	41.9150906	41.7587573	42.7592902	<i>Hspa4</i>	23.7004884	25.401311	30.7756512	<i>Cxcl12</i>	1.63723406	3.62520153	3.3320982				
<i>Sec61b</i>	19.8440867	27.9919313	34.9503829	<i>Rfxap</i>	15.0401132	13.8219956	18.2880272	<i>Ifng</i>	0.80421515	2.89889416	1.01024294				
<i>Actg1</i>	13.4694009	16.4627206	25.7284624					<i>Ccl6</i>	165.878578	436.211669	661.068853				
<i>Tuba1b</i>	20.3864327	22.5742324	25.4979434					<i>Ccr2</i>	145.64847	370.704738	515.179022				
<i>Sec61a1</i>	18.8314894	21.6993843	22.9046707					<i>Lgals3</i>	135.425948	371.354079	525.198041				
<i>Tuba1a</i>	9.88242879	14.4234087	20.6965531					<i>Cxcl13</i>	75.7427393	85.9913159	141.153622				
<i>Dync1li2</i>	17.0208168	14.5620758	18.9806815					<i>Ccl9</i>	60.9892222	236.380012	331.045913				
								<i>Il6ra</i>	45.3645924	57.9277373	58.7885823				
								<i>Il2rg</i>	43.4802403	78.4681243	80.8061033				
								<i>Il17ra</i>	39.2619117	47.2846613	48.6427583				
								<i>Tnfrsf13b</i>	35.6638884	40.4409939	60.4568746				
								<i>Tnf</i>	25.10997	32.6748057	35.8285852				
								<i>Ccl22</i>	15.9053209	27.7818719	30.3460139				
								<i>Ccl17</i>	15.004145	32.0817829	34.5318533				
								<i>Cer7</i>	7.13655487	13.0359002	15.8420123				
								<i>Il1r2</i>	4.56469408	5.97708587	7.96901621				