

## **Supplementary Materials**

### **Supplementary Methods:**

qPCR reactions protocol :

We assayed 18 genes by PCR including the 2 housekeeping genes using single PCR reaction. PCR plate were designed as follow :

- 2 individuals from different group in each plate (SIV-/SIV+ or SIV-/SIV+ART+ or SIV+/SIV+ART+)
- SCAT and VAT samples of each animal on the same plate
- 8 genes of interest and PPIA expression by plate , using duplicate.
- In total, 2 plates were needed to study all of our genes of interest in each individual

Gene name	Stability value
18S	1.262
PPIA	1.236
RPLPO	0.533
18S and PPIA	0.527

**Table S1:** The various housekeeping genes' stability values, calculated using NormFinder software and 204 gene expression values.

	SIV-		SIV+				SIV+ART+					
	Medians	IQR	Medians	IQR	Ratio /SIV-	p-value	Medians	IQR	Ratio /SIV-	p-value	Ratio /SIV+	p-value
PPARG	0.002386	0.0159	0.001079	0.0401	0.45	>0.99	0.0461	0.5839	19.3	0.01	42.7	0.0005
CEBPA	0.006831	0.0149	0.004538	0.0787	0.66	>0.99	0.0749	0.9943	11.0	0.04	16.5	0.005
COL1A2	0.000941	0.0372	0.001863	0.8842	2.0	>0.99	0.1931	3.163	205.3	0.005	103.7	0.02
PPARG/COL1A2	2.497	11.40	0.4633	3.260	0.18	0.15	0.3175	1.774	0.12	0.07	0.69	>0.99
HIF1A	0.001321	0.0177	0.001203	0.1278	1.0	>0.99	0.02580	0.5509	22.0	0.02	21.4	0.04
CD45	7.841 e-007	1.758 e-005	2.054 e-007	0.0002	0.3	>0.99	3.154 e-005	0.002355	40.2	0.6	153.6	0.3
CD163	0.000656	0.0023	0.0001732	0.0198	0.3	>0.99	0.005941	0.1634	9.06	0.006	34.3	0.01
IFNG	4.237e-008	7.692e-6007	1.533 e-007	3.065 e-006	3.6	0.8	5.501e-007	0.0002362	13.0	0.087	3.6	0.8
IL6	0.001727	00.008222	0.0001180	0.01231	0.07	0.7	0.0008837	0.03329	0.5	>0.99	7.5	0.8
TNFA	7.841 e-007	5.182 e-005	1.743 e-007	0.0005385	0.22	>0.99	6.260 e-005	0.005880	80	>0.99	359.2	0.5
ADIPOQ	0.01853	0.008699	0.01973	0.7699	1.06	>0.99	0.3920	4.807	21	0.009	19.9	0.04
LEP	0.03921	0.2966	0.02806	2.456	0.7	>0.99	0.3373	5.410	8.6	0.15	12.0	0.03
ADIPOQ/LEP	0.3882	6.958	0.5548	3.200	1.43	0.84	1.261	2.931	3.25	0.011	2.3	0.17
CCL5	0.0005893	0.001932	0.002709	0.03319	4.6	0.3	0.0091127	0.1067	15.5	0.004	3.4	0.3
MCP1	0.001319	0.01130	0.001623	0.01736	1.2	>0.99	0.004540	0.04064	3.4	0.5	2.8	0.3
CX3CL1	9.089 e-007	0.0001513	1.986 e-005	0.001935	21.8	0.7	0.0005754	0.004909	633	0.001	29.0	0.04
CXCL10	1.712 e-005	0.0001890	0.0001391	0.002528	8.1	0.6	4.996e-005	0.001901	2.9	0.99	0.4	>0.99
MX1	0.0001964	0.006345	0.0003987	0.1728	2.0	0.7	0.03091	0.2828	157.4	0.0007	77.5	0.02

**Table S2:** Medians and IQR values, comparisons (ratios) of the medians and exact P-values in SCAT

	SIV-		SIV+				SIV+ART+					
	Medians	IQR	Medians	IQR	Ratio /SIV-	p-value	Medians	IQR	Ratio /SIV-	p-value	Ratio /SIV+	p-value
PPARG	0.004661	0.1634	0.003890	0.01885	0.8	<b>0.9</b>	0.02980	0.4765	6.4	<b>0.2</b>	7.7	<b>0.003</b>
CEBPA	0.0006882	0.9298	0.005331	0.04758	7.7	<b>&gt;0.99</b>	0.009570	1.713	13.9	<b>0.3</b>	1.8	<b>0.3</b>
COL1A2	0.001038	0.02399	0.001858	0.03243	1.8	<b>&gt;0.99</b>	0.04915	0.6917	47.4	<b>0.002</b>	26.5	<b>0.06</b>
PPARG/COL1A2	8.754	143.5	2.041	9.95	0.23	<b>0.16</b>	1.356	4.95	0.15	<b>0.047</b>	0.66	<b>&gt;0.999</b>
HIF1A	0.006831	0.05820	0.001835	0.01594	0.3	<b>&gt;0.99</b>	0.02686	0.2079	3.9	<b>0.2</b>	14.6	<b>0.02</b>
CD45	6.977 e-006	0.0001055	2.658 e-006	0.0002276	0.4	<b>&gt;0.99</b>	5.396 e-005	0.001356	7.7	<b>0.3</b>	20.3	<b>0.09</b>
CD163	0.0006459	0.01120	0.0008414	0.005379	1.3	<b>&gt;0.99</b>	0.002703	0.09786	4.2	<b>0.1</b>	3.2	<b>0.04</b>
IFNG	2.716 e-007	3.899 e-005	1.334 e-007	4.176 e-006	0.5	<b>&gt;0.99</b>	2.902 e-005	0.002694	106.8	<b>0.3</b>	217.5	<b>0.07</b>
IL6	0.0009372	0.02838	3.092 e-005	0.0006663	0.03	<b>0.6</b>	0.0003397	0.01102	0.4	<b>&gt;0.99</b>	11.0	<b>0.2</b>
TNFA	1.711 e-007	1.156e-006	7.041 e-007	0.0003710	4.1	<b>0.6</b>	0.0001950	0.003503	1139.7	<b>0.0003</b>	277	<b>0.01</b>
ADIPOQ	0.03905	0.8469	0.04946	0.8327	1.3	<b>&gt;0.99</b>	0.5703	5.889	14.6	<b>0.047</b>	11.5	<b>0.07</b>
LEP	0.02046	0.7438	0.06041	0.9938	3.0	<b>&gt;0.99</b>	0.2285	1.345	11.2	<b>0.1</b>	3.8	<b>0.4</b>
ADIPOQ/LEP	0.5350	14.04	1.393	5.444	2.6	<b>0.95</b>	2.214	6.185	4.1	<b>0.086</b>	1.6	<b>0.55</b>
CCL5	0.0007636	0.009266	0.001462	0.09206	1.9	<b>0.8</b>	0.01297	0.1020	17.0	<b>0.02</b>	8.9	<b>0.2</b>
MCP1	0.0006122	0.02866	0.001179	0.003512	1.9	<b>&gt;0.99</b>	0.005015	0.03005	8.2	<b>0.2</b>	4.3	<b>0.1</b>
CX3CL1	7.656 e-006	0.0009774	4.607 e-005	0.0007388	6.0	<b>&gt;0.99</b>	0.0002763	0.004876	36.1	<b>0.04</b>	6.0	<b>0.08</b>
CXCL10	4.607 e-005	0.002371	7.238 e-005	0.003237	1.6	<b>&gt;0.99</b>	0.0004344	0.01408	9.4	<b>0.046</b>	6.0	<b>0.1</b>
MX1	0.0005093	0.02980	0.0007254	0.06549	1.4	<b>&gt;0.99</b>	0.02082	0.4176	40.9	<b>0.008</b>	28.7	<b>0.03</b>

**Table S3:** Medians and IQR values, comparisons (ratios) of the medians and exact P-values in VAT