

Supplementary Table 1: Unchanged cytokines or chemokines ($p > 0.05$ by two-sided T-test) in serum from Atg7 Δ/Δ (n=8) vs Atg7 $+/+$ (n=4) hosts without tumors.

Cytokine/Chemokine name	Mean concentration in Atg7 $+/+$ host (pg/ml)	Mean concentration in Atg7 Δ/Δ host (pg/ml)	p values
CCL5	31.19	88.56	0.11
CXCL1	1.43	12.47	0.35
Eotaxin	229.80	210.50	0.55
GM-CSF	2.83	2.83	0.51
IFN-gamma	0.93	1.64	0.57
IL-12p70	0.31	0.48	0.48
IL-13	2.09	2.43	0.54
IL-17A	1.45	1.45	0.51
IL-18	45.65	88.10	0.40
IL-1b	0.99	1.42	0.46
IL-2	1.81	1.81	0.51
IL-22	7.81	10.14	0.65
IL-23	8.74	9.72	0.59
IL-27	2.92	2.93	1.00
IL-4	1.24	1.25	0.96
IL-5	2.59	13.94	0.41
IL-6	3.65	13.19	0.19
IL-9	19.20	21.84	0.66
IL-10	2.69	1.71	0.10
MCP-3	40.86	78.66	0.09
MIP-1a	0.87	5.82	0.43
MIP-1b	0.96	0.96	0.51
MIP-2	1.11	1.33	0.77
TNFa	8.51	9.16	0.89

Supplementary Table 2: Unchanged cytokines or chemokines ($p > 0.05$ by two-sided T-test) in serum from Atg7 Δ/Δ vs Atg7 $+/+$ (n=12 each) hosts with tumors.

Cytokine/Chemokine name	Mean concentration in Atg7$+/+$ host (pg/ml)	Mean concentration in Atg7Δ/Δ host (pg/ml)	p values
CCL5	92.64	106.90	0.79
Eotaxin	339.20	292.40	0.29
GM-CSF	2.55	2.61	0.82
IFN-gamma	1.00	1.47	0.22
IL-12p70	1.23	1.62	0.11
IL-13	9.20	9.27	0.99
IL-17A	0.48	0.56	0.17
IL-18	180.80	268.50	0.57
IL-1b	0.25	0.33	0.28
IL-2	1.73	1.81	0.33
IL-22	32.45	26.03	0.68
IL-23	14.41	24.76	0.36
IL-27	52.71	84.55	0.57
IL-4	0.60	0.50	0.45
IL-5	17.66	19.04	0.78
IL-9	231.90	239.20	0.97
IP10	47.21	51.11	0.81
IL-10	3.96	4.38	0.78
MCP-3	172.80	179.20	0.83
MIP-1a	18.94	7.98	0.46
MIP-1b	1.04	1.32	0.54
MIP-2	3.05	4.88	0.12
TNFa	9.51	12.12	0.22

Supplementary Table 3: Number of synonymous and non-synonymous mutations in MB49, YUMM1.1, UV YUMM1.1-9 and YUMM1.3 cell lines as determined by whole exome sequencing.

	Synonymous Mutations	Non Synonymous Mutations	Total	Mt/Mb
MB49	165	542	707	11
YUMM1.1	128	301	429	6
UV YUMM1.1-9	346	741	1087	15
YUMM1.3	57	168	225	3

Supplementary Table 10: Cell numbers for each cluster in tumors from female Atg7^{+/+} and Atg7^{Δ/Δ} hosts (n=4 each).

	Atg7 ^{+/+}				Atg7 ^{Δ/Δ}			
	1	2	3	4	1	2	3	4
Tumor cells	1354	1479	4410	3351	53	159	108	124
T cells	57	337	544	519	221	340	179	779
Monocytes	66	239	335	340	298	162	40	1396
Macrophages	762	1030	631	1216	2156	1633	209	2190
M1	269	258	43	126	685	516	46	346
M2	484	444	242	530	1300	1318	162	1149
Dendritic cells	8	36	89	110	217	33	69	95
Fibroblasts	56	24	61	75	918	83	359	388
Endothelial cells	8	8			28	44		

** endothelial and B cells are minor/rare cell population in this experiment and discounted for further analysis

Supplementary Table 11: Unchanged cytokines or chemokines ($p > 0.05$ by two-sided T-test) in serum from hepatocyte-specific Atg7 Δ/Δ vs Atg7 $+/+$ ($n=6$ each) hosts with tumors.

Cytokine/Chemokine name	Mean concentration in Atg7$+/+$ host (pg/ml)	Mean concentration in Atg7Δ/Δ host (pg/ml)	p values
CCL5	65.71	183.30	0.11
CXCL1	4.07	11.60	0.10
GM-CSF	2.83	3.01	0.34
IFN-gamma	0.93	1.33	0.44
IL-13	18.47	14.20	0.83
IL-17A	0.35	0.62	0.21
IL-18	56.45	62.90	0.78
IL-1b	0.72	1.58	0.36
IL-2	1.42	1.49	0.84
IL-22	63.28	74.72	0.80
IL-23	8.39	9.13	0.64
IL-27	114.70	187.40	0.72
IL-4	0.24	0.47	0.30
IL-5	10.93	16.44	0.37
IL-6	3.74	5.54	0.51
IL-9	460.10	530.20	0.91
IL-10	2.88	4.74	0.39
MCP-3	79.95	94.88	0.54
MIP-1a	12.21	12.42	0.99
MIP-2	1.44	9.91	0.25

Supplementary Table 12: Unchanged cytokines or chemokines ($p > 0.05$ by two-sided T-test) in liver from hepatocyte-specific Atg7 Δ/Δ vs Atg7 $+/+$ (n=6 each) hosts with tumors.

Cytokine/Chemokine name	Mean concentration in Atg7 $+/+$ host (pg/ml)	Mean concentration in Atg7 Δ/Δ host (pg/ml)	p values
Eotaxin	286.80	250.5	0.55
IFN-gamma	339.40	421.2	0.30
IL-12p70	212.10	207.6	0.92
IL-13	233.00	380.5	0.07
IL-17A	58.81	91.74	0.11
IL-2	298.40	461.3	0.15
IL-22	168.60	319.2	0.08
IL-23	1521.00	2145	0.12
IL-27	189.70	352.9	0.06
IL-4	30.86	44.34	0.44
IL-5	213.50	319.9	0.18
IL-9	4621.00	6104	0.19
IL6	2381.00	2949	0.31
IL-10	12243.00	15588	0.16
MCP-3	120.50	202.1	0.10
MIP-2	173.80	228.2	0.17
TNFa	875.50	1159	0.18

Supplementary Table 13: Sample cell numbers used for scRNA-seq analysis in tumors from female Atg7^{+/+} and Atg7 Δ/Δ hosts (n=4 each).

Genotype	Sample	Starting Cells	Filtered Cells	Fractions of recovered cells
Atg7^{+/+}	1	2856	2295	0.803571429
	2	3440	3153	0.916569767
	3	6184	6070	0.98156533
	4	5961	5611	0.941285019
Atg7Δ/Δ	1	4266	3948	0.925457103
	2	2680	2454	0.915671642
	3	1004	964	0.960159363
	4	5095	5001	0.98155054