

Table S1. Normalized gene expression level of lncRNAs for early versus advanced-stage of CRC patients. The *p* values are calculated based on a Student's *t*-test of the replicate 2^Δ (-ΔΔCt) values for each gene in the early-stage and advanced-stage of CRC patients.

Position	Gene Symbol	AVG ΔCt		2 ^Δ -ΔCt		Fold Change		<i>p</i> -value	Fold Up- or Down-Regulation	
		Advanced-stage	Early-stage	Advanced-stage	Early-stage	Early-stage/advanced-stage	Comments		Early stage/advanced-stage	Early stage/advanced-stage
A01	ACTA2-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A02	ADAMTS9-AS2	12.13	11.71	0.000223	0.000298	0.75	B	0.350293		-1.34
A03	AFAP1-AS1	12.06	11.71	0.000233	0.000297	0.78	B	0.352468		-1.27
A04	AIRN	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A05	BANCR	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A06	BCAR4	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A07	BLACAT1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A08	CAHM	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A09	CBR3-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A10	CCAT1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
A11	CCAT2	12.11	11.71	0.000227	0.000297	0.76	B	0.352671		-1.31
A12	CDKN2B-AS1	12.13	11.08	0.000223	0.000462	0.48	B	0.226005		-2.07
B01	CRNDE	11.64	11.44	0.000314	0.000361	0.87	B	0.590460		-1.15
B02	DGCR5	12.13	11.48	0.000223	0.000349	0.64	B	0.314541		-1.56
B03	DLEU2	11.59	10.5	0.000325	0.00069	0.47	B	0.064086		-2.12
B04	DLX6-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
B05	EMX2OS	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
B06	FTX	12.08	11.71	0.000231	0.000297	0.78	B	0.369633		-1.29
B07	GACAT1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
B08	GAS5	3.71	3.95	0.076203	0.064648	1.18		0.942845		1.18
B09	GAS6-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
B10	GNAS-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
B11	H19	3.38	7.68	0.095789	0.004889	19.59		0.046517		19.59
B12	HAND2-AS1	12.13	11.61	0.000223	0.00032	0.7	B	0.335190		-1.43
C01	HEIH	10.1	9.73	0.000912	0.001174	0.78	B	0.572422		-1.29
C02	HIF1A-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
C03	HIF1A-AS2	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
C04	HNF1A-AS1	12.13	11.52	0.000223	0.000341	0.65	B	0.322718		-1.53
C05	HOTAIR	12.13	11.51	0.000223	0.000343	0.65	B	0.321589		-1.53
C06	HOTAIRM1	11.85	9.37	0.000272	0.001509	0.18	B	0.121880		-5.55
C07	HOTTIP	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
C08	HOXA11-AS	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
C09	HOXA-AS2	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33
C10	HULC	12.13	11.71	0.000223	0.000297	0.75	C	0.350699		-1.33

C11	IPW	12.13	11.22	0.000223	0.000419	0.53	B	0.163563	-1.87
C12	JADRR	12.13	11.61	0.000223	0.000321	0.7	B	0.338916	-1.44
D01	KCNQ1OT1	12.13	11.18	0.000223	0.000432	0.52	B	0.173818	-1.93
D02	KRASPI	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
D03	LINC00152	5.29	4.1	0.02563	0.058264	0.44		0.694516	-2.27
D04	LINC00261	12.13	11.43	0.000223	0.000362	0.62	B	0.299397	-1.62
D05	LINC00312	12.13	11.43	0.000223	0.000362	0.62	B	0.299397	-1.62
D06	LINC00538	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
D07	LINC00887	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
D08	LINC00963	12.13	11.54	0.000223	0.000336	0.67	B	0.320303	-1.5
D09	LINC01233	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
D10	LINC01234	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
D11	LSINCT5	12.13	11.65	0.000223	0.000311	0.72	B	0.344617	-1.39
D12	LUCAT1	12.08	11.71	0.000231	0.000297	0.78	B	0.360726	-1.29
E01	MALAT1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
E02	MEG3	12.13	11.52	0.000223	0.000342	0.65	B	0.322439	-1.53
E03	MIR155HG	11.9	11.7	0.000262	0.000301	0.87	B	0.660549	-1.15
E04	MIR17HG	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
E05	MIR31HG	12.13	11.71	0.000223	0.000298	0.75	B	0.350498	-1.33
E06	MIR7-3HG	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
E07	MRPL23-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
E08	NAMA	12.13	11.62	0.000223	0.000317	0.7	B	0.340966	-1.42
E09	NBR2	11.85	11.57	0.000272	0.000328	0.83	B	0.671969	-1.21
E10	NEAT1	9.78	8.86	0.001141	0.002147	0.53	B	0.842517	-1.88
E11	NRON	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
E12	PANDAR	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F01	PCA3	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F02	PCAT1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F03	PCGEM1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F04	POU5F1P5	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F05	PRNCR1	11.84	11.27	0.000273	0.000406	0.67	B	0.290353	-1.49
F06	PTCSC1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F07	PTCSC3	12.13	11.57	0.000223	0.00033	0.68	B	0.332392	-1.48
F08	PTENP1	11.99	11.71	0.000245	0.000297	0.82	B	0.393893	-1.21
F09	PVT1	11.9	10.77	0.000261	0.000575	0.45	B	0.182207	-2.2
F10	RMRP	8.6	8.08	0.002572	0.003699	0.7		0.225709	-1.44
F11	RMST	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
F12	RPS6KA2-AS1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
G01	SNHG16	9.68	8.98	0.001218	0.001977	0.62	B	0.899145	-1.62
G02	SPRY4-IT1	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
G03	SUMO1P3	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
G04	TERC	12.13	11.6	0.000223	0.000322	0.69	B	0.338378	-1.44
G05	TRERNA1	12.13	11.57	0.000223	0.000329	0.68	B	0.303832	-1.47

G06	TSIX	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
G07	TUG1	11.67	10.09	0.000308	0.00092	0.33		0.025613	-2.99
G08	TUSC7	12.13	11.71	0.000223	0.000297	0.75	C	0.350699	-1.33
G09	UCA1	12.13	11.13	0.000223	0.000447	0.5	B	0.131656	-2
G10	WT1-AS	12.13	11.59	0.000223	0.000325	0.69	B	0.335924	-1.46
G11	XIST	12.11	11.7	0.000227	0.000301	0.75	B	0.356766	-1.33
G12	ZFAS1	5.87	4.9	0.017122	0.033464	0.51		0.855877	-1.95

Table S2. Normalized gene expression level of lncRNAs for non-cancer individuals versus CRC patients. The p values are calculated based on a Student's *t*-test of the replicate 2^Δ (- Delta Ct) values for each gene in the non-cancer group and CRC groups.

Position	Gene Symbol	AVG ΔC _t		2 ^Δ ΔC _t		Fold Change		p-value	Fold Up-or Down-Regulation
		CRC	Non-cancer	CRC	Non-cancer	CRC /non-cancer	Comments	CRC /non-cancer	CRC /non-cancer
A01	ACTA2-AS1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
A02	ADAMTS9-AS2	11.94	10.81	0.000254	0.000556	0.46	B	0.052259	-2.19
A03	AFAP1-AS1	11.91	10.75	0.00026	0.000579	0.45	B	0.053479	-2.23
A04	AIRN	11.94	10.76	0.000254	0.000578	0.44	B	0.057746	-2.28
A05	BANCR	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
A06	BCAR4	11.94	10.71	0.000254	0.000597	0.42	B	0.061246	-2.35
A07	BLACAT1	11.94	10.77	0.000254	0.000574	0.44		0.041756	-2.26
A08	CAHM	11.94	10.7	0.000254	0.000603	0.42		0.034852	-2.38
A09	CBR3-AS1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
A10	CCAT1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
A11	CCAT2	11.93	10.82	0.000256	0.000554	0.46	B	0.054127	-2.17
A12	CDKN2B-AS1	11.66	10.82	0.000309	0.000552	0.56	B	0.667772	-1.79
B01	CRNDE	11.55	10.67	0.000334	0.000616	0.54	B	0.889903	-1.84
B02	DGCR5	11.84	10.82	0.000273	0.000552	0.49	B	0.057720	-2.03
B03	DLEU2	11.1	9.66	0.000454	0.001239	0.37	B	0.118556	-2.73
B04	DLX6-AS1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
B05	EMX2OS	11.94	10.8	0.000254	0.000561	0.45	B	0.053222	-2.21
B06	FTX	11.92	10.38	0.000258	0.000751	0.34	B	0.200192	-2.91
B07	GACAT1	11.94	10.8	0.000254	0.000559	0.45	B	0.053289	-2.2
B08	GAS5	3.82	2.23	0.070833	0.212526	0.33		0.103149	-3
B09	GAS6-AS1	11.94	10.81	0.000254	0.000556	0.46	B	0.051232	-2.19
B10	GNAS-AS1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
B11	H19	5.29	3.92	0.02553	0.065889	0.39		0.921921	-2.58
B12	HAND2-AS1	11.9	10.82	0.000262	0.000552	0.47	B	0.055638	-2.11
C01	HEIH	9.94	7.97	0.001021	0.003978	0.26	B	0.772519	-3.9
C02	HIF1A-AS1	11.94	9.43	0.000254	0.001452	0.17	B	0.361454	-5.72
C03	HIF1A-AS2	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
C04	HNFI1A-AS1	11.86	10.76	0.00027	0.000576	0.47	B	0.053025	-2.14
C05	HOTAIR	11.85	10.71	0.00027	0.000598	0.45		0.044996	-2.21

C06	HOTAIRM1	10.75	10.11	0.000582	0.000905	0.64	B	0.730295	-1.56
C07	HOTTIP	11.94	10.73	0.000254	0.000588	0.43	B	0.055283	-2.32
C08	HOXA11-AS	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
C09	HOXA-AS2	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
C10	HULC	11.94	10.78	0.000254	0.000567	0.45	B	0.050711	-2.24
C11	IPW	11.73	9.82	0.000295	0.001107	0.27	B	0.109129	-3.75
C12	JADRR	11.9	10.76	0.000262	0.000575	0.46		0.047305	-2.19
D01	KCNQ1OT1	11.71	10.82	0.000299	0.000552	0.54	B	0.090097	-1.85
D02	KRAS P1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
D03	LINC00152	4.76	3.07	0.03692	0.11908	0.31		0.040188	-3.23
D04	LINC00261	11.82	10.74	0.000277	0.000584	0.47		0.048652	-2.11
D05	LINC00312	11.82	10.81	0.000277	0.000559	0.5	B	0.058608	-2.02
D06	LINC00538	11.94	10.71	0.000254	0.000596	0.43	B	0.054117	-2.35
D07	LINC00887	11.94	10.8	0.000254	0.00056	0.45	B	0.053868	-2.21
D08	LINC00963	11.87	9.97	0.000268	0.001	0.27	B	0.172212	-3.73
D09	LINC01233	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
D10	LINC01234	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
D11	LSINCT5	11.92	10.81	0.000259	0.000556	0.47	B	0.054068	-2.15
D12	LUCAT1	11.92	10.78	0.000259	0.00057	0.45	B	0.051017	-2.2
E01	MALAT1	11.94	10.8	0.000254	0.000563	0.45	B	0.055227	-2.22
E02	MEG3	11.86	10.82	0.00027	0.000552	0.49	B	0.056877	-2.05
E03	MIR155HG	11.81	10.7	0.000279	0.000601	0.46	B	0.101757	-2.16
E04	MIR17HG	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
E05	MIR31HG	11.94	10.77	0.000254	0.000572	0.44	B	0.053014	-2.25
E06	MIR7-3HG	11.94	9.66	0.000254	0.001239	0.2	B	0.361451	-4.88
E07	MRPL23-AS1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
E08	NAMA	11.9	10.81	0.000261	0.000556	0.47	B	0.052384	-2.13
E09	NBR2	11.72	9.92	0.000296	0.001035	0.29	B	0.075069	-3.5
E10	NEAT1	9.37	7.87	0.001511	0.004273	0.35	B	0.252364	-2.83
E11	NRON	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
E12	PANDAR	11.94	10.82	0.000254	0.000553	0.46	B	0.053701	-2.18
F01	PCA3	11.94	10.81	0.000254	0.000557	0.46	B	0.050573	-2.2
F02	PCAT1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
F03	PCGEM1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
F04	POU5F1P5	11.94	10.65	0.000254	0.000623	0.41	B	0.051159	-2.46
F05	PRNCR1	11.58	9.86	0.000326	0.001074	0.3	B	0.072399	-3.3
F06	PTCSC1	11.94	10.8	0.000254	0.000559	0.45	B	0.052811	-2.2
F07	PTCSC3	11.88	10.75	0.000266	0.000582	0.46	B	0.079524	-2.19
F08	PTENP1	11.87	10.8	0.000267	0.000559	0.48	B	0.058380	-2.09
F09	PVT1	11.4	9.42	0.000371	0.001459	0.25	B	0.325096	-3.94
F10	RMRP	8.37	7.15	0.003023	0.007046	0.43		0.246914	-2.33
F11	RMST	11.94	10.7	0.000254	0.000599	0.42		0.037760	-2.36
F12	RPS6KA2-AS1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18

G01	SNHG16	9.37	6.36	0.001511	0.012182	0.12	A	0.085807	-8.06
G02	SPRY4-IT1	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
G03	SUMO1P3	11.94	10.78	0.000254	0.000568	0.45		0.046959	-2.24
G04	TERC	11.89	10.78	0.000263	0.000568	0.46		0.047714	-2.16
G05	TRERNA1	11.88	10.8	0.000265	0.00056	0.47	B	0.058883	-2.11
G06	TSIX	11.94	10.81	0.000254	0.000555	0.46	B	0.053604	-2.19
G07	TUG1	10.96	9.5	0.0005	0.001379	0.36	B	0.184977	-2.76
G08	TUSC7	11.94	10.82	0.000254	0.000552	0.46	C	0.054175	-2.18
G09	UCA1	11.68	10.64	0.000304	0.000628	0.48	B	0.075796	-2.06
G10	WT1-AS	11.89	10.82	0.000264	0.000555	0.48	B	0.053505	-2.1
G11	XIST	11.93	10.77	0.000257	0.000573	0.45	B	0.050035	-2.23
G12	ZFAS1	5.44	3.08	0.023062	0.118062	0.2		0.094430	-5.12

Supplementary Figures

Western blot analysis of ALIX/PDCD6IP from exosomes derived from SW480-7 and total cell lysates of SW480-7. A series of blot images were captured with camera exposure times ranging from 1 minute to 5 minutes.

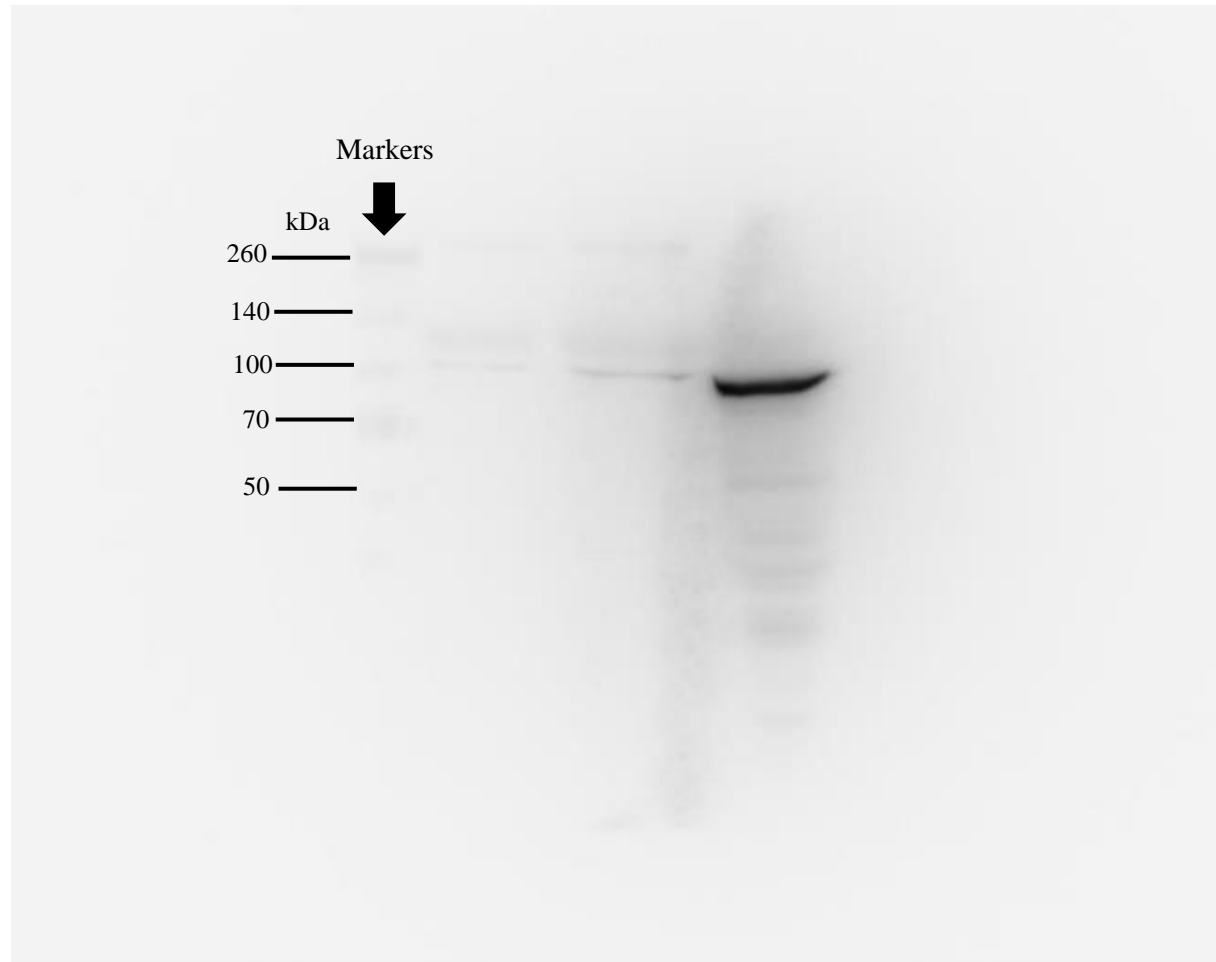


Figure S1a. Western blot analysis of ALIX/PDCD6IP from exosomes derived from SW480-7 and total cell lysates of SW480-7. The chemiluminescence image was captured at 1 minute exposure time.

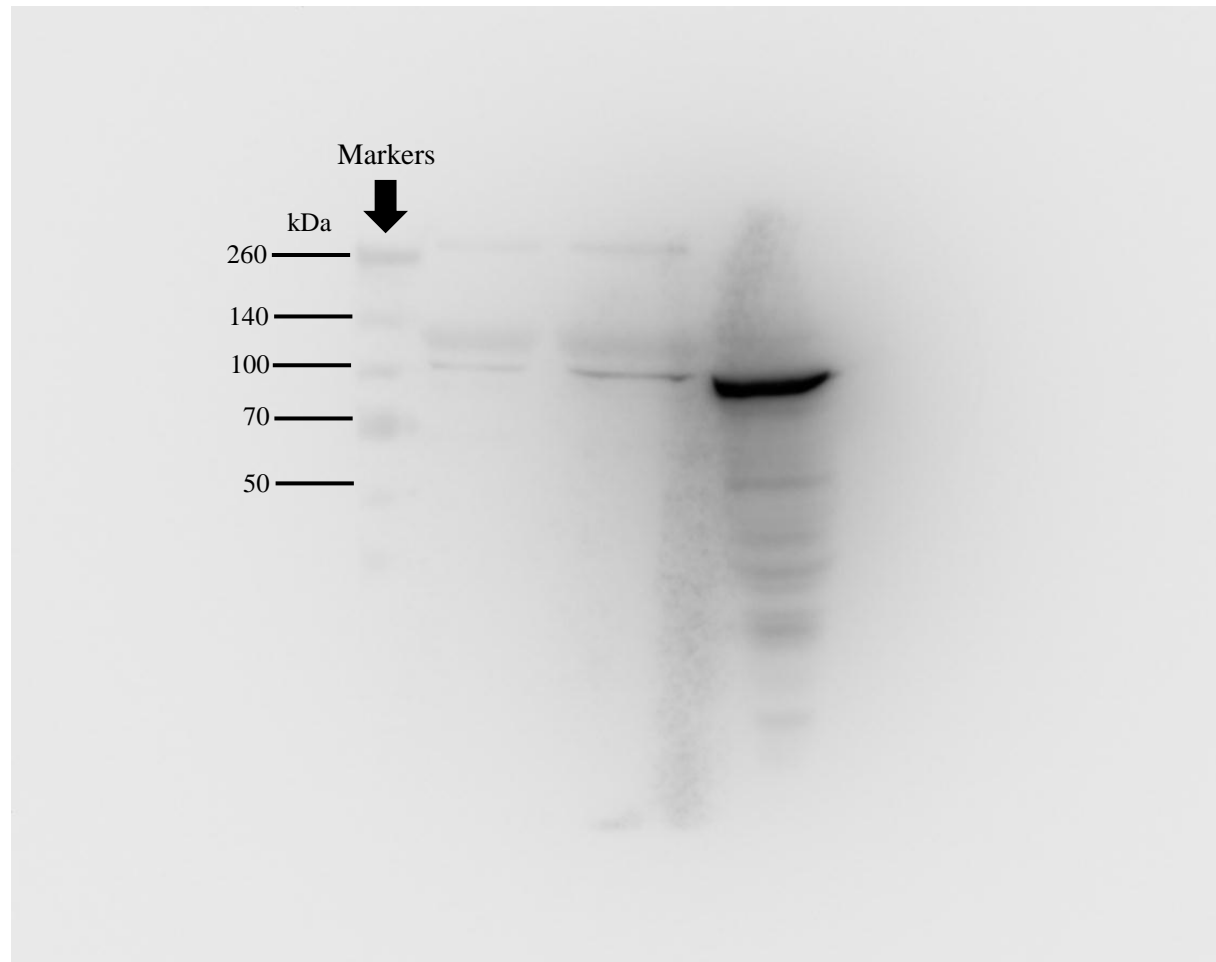


Figure S1b. Western blot analysis of ALIX/PDCD6IP from exosomes derived from SW480-7 and total cell lysates of SW480-7. The chemiluminescence image was captured at 2 minute exposure time.

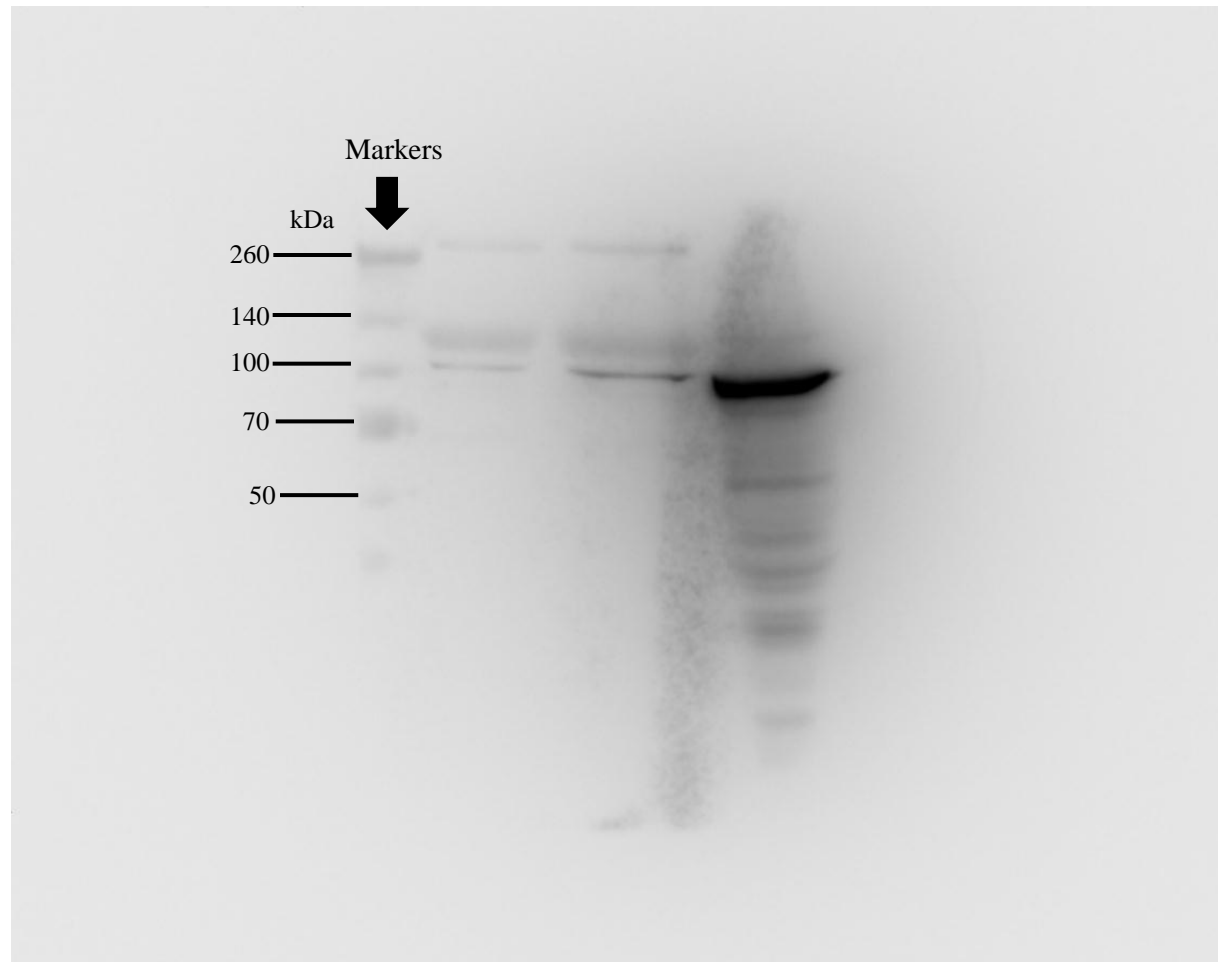


Figure S1c. Western blot analysis of ALIX/PDCD6IP from exosomes derived from SW480-7 and total cell lysates of SW480-7. The chemiluminescence image was captured at 3 minute exposure time.

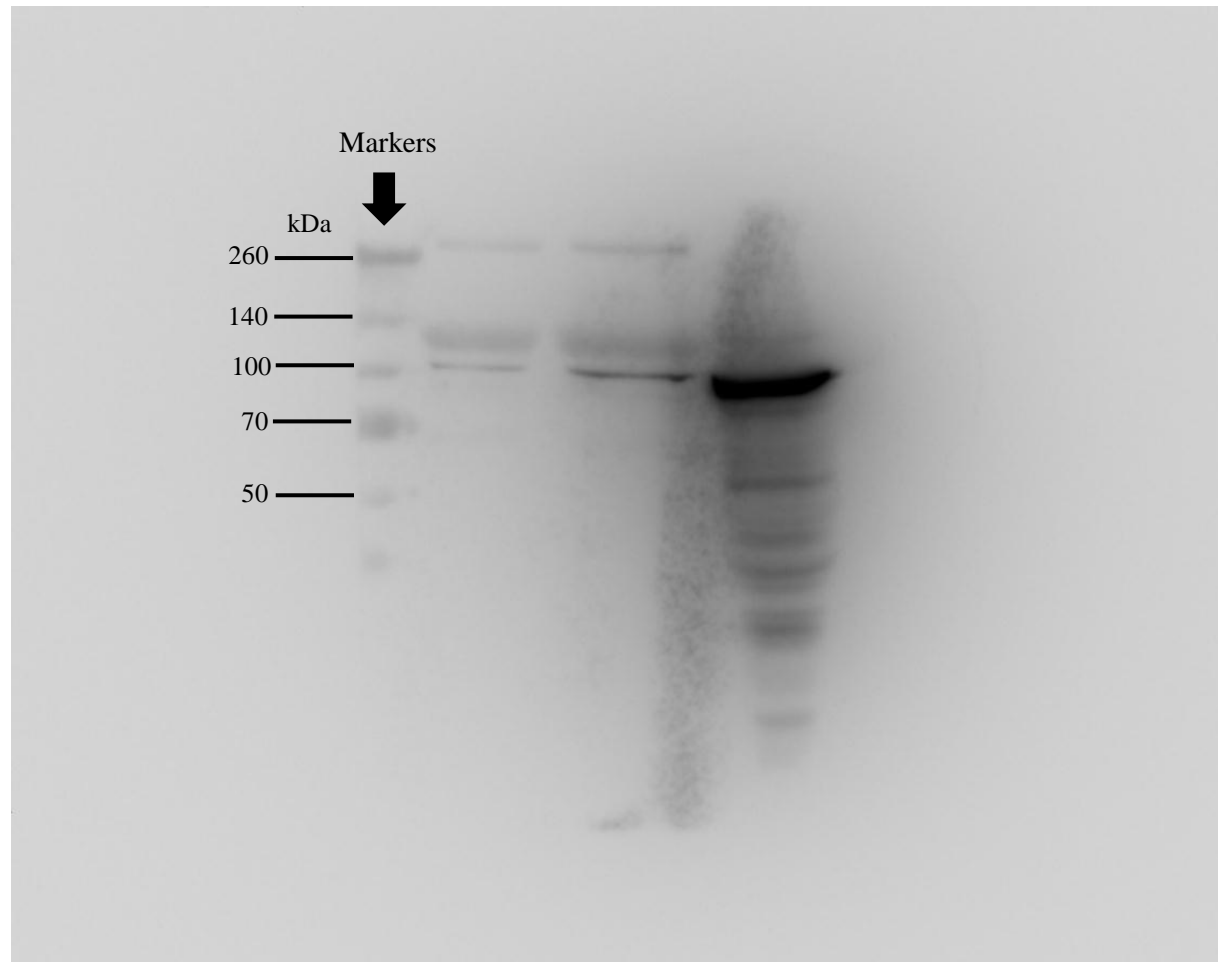


Figure S1d. Western blot analysis of ALIX/PDCD6IP from exosomes derived from SW480-7 and total cell lysates of SW480-7. The chemiluminescence image was captured at 4 minute exposure time.

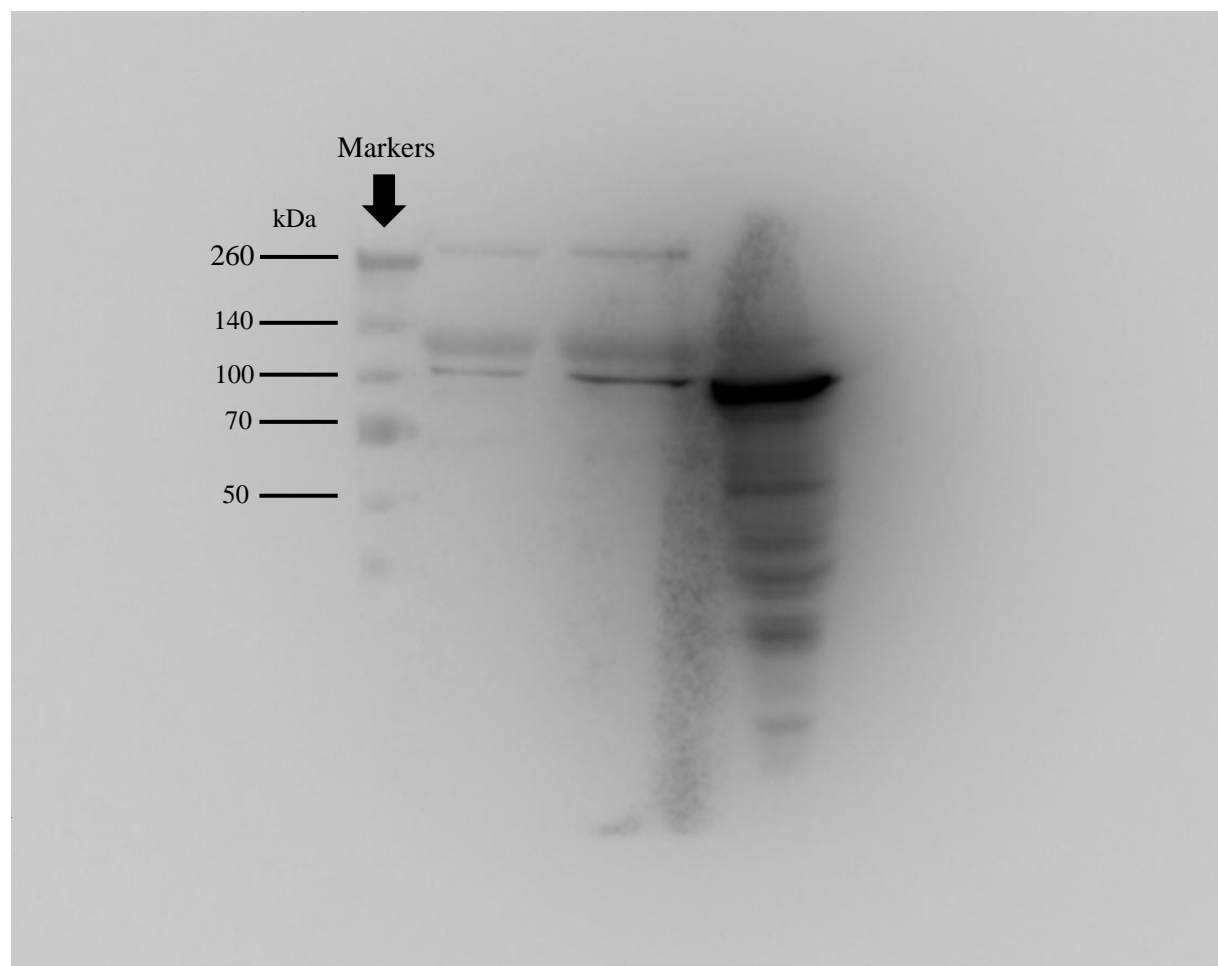


Figure S1e. Western blot analysis of ALIX/PDCD6IP from exosomes derived from SW480-7 and total cell lysates of SW480-7. The chemiluminescence image was captured at 5 minute exposure time.