

## Supplementary Material

*Supplementary Table S1. SiRNAs used for knockdown.*

siRNA	Manufacturer	Manufacturer's ID	UniGene ID
MSI-1	ThermoFisher Scientific	S8980	Hs.158311
MSI-2	ThermoFisher Scientific	S42757	Hs.658922
<i>Negative Control</i>	ThermoFisher Scientific	4390843	-

*Supplementary Table S2. TaqMan probes used for qPCR.*

Gene	Manufacturer	Primer sequence
NUMB	ThermoFisher Scientific Hs00377772_m1	<i>Full product details can be found on the manufacturer's website using the catalogue number</i>
18S	ThermoFisher Scientific Hs99999901_s1	
MSI-1	ThermoFisher Scientific Hs00159291_m1	
MSI-2	ThermoFisher Scientific Hs00292670_m1	
ALDH1A1	ThermoFisher Scientific Hs00167445_m1	
ALDH4A1	ThermoFisher Scientific Hs00186689_m1	

*Supplementary Table S3. Primers used for qPCR with SYTO9.*

Gene	Manufacturer	Primer sequence
HPRT	Qiagen (QT00059066)	<i>Full product details can be found on the manufacturer's website using the catalogue number.</i>
NOTCH-1	Biolegio	Fwd: GGTGAGACCTGCCTGAATG Rev: GTTGGGGTCCTGGCATC
NOTCH-2	Biolegio	Fwd: AACTGTCAGACCCTGGTGAAC Rev: CGACAAGTGTAGCCTCCAATC
NOTCH-3	Biolegio	Fwd: TGTGCAAATGGAGGTCGTT Rev: CCTGAGTGACAGGGGTCCT

*Supplementary Table S4. Antibodies used for Western Blotting.*

Target	Manufacturer	Catalogue number
NUMB	Santa Cruz	sc-136554
NOTCH-1	Santa Cruz	sc-376403
NOTCH-3	Cell Signaling Technology	5276
p21	Cell Signaling Technology	2947
MSI-1	R & D Systems	AF2628
MSI-2	Santa Cruz	sc-517212

Tubulin	Santa Cruz	sc-5286
Anti-Rabbit IgG HRP	R & D Systems	HAF008
Anti-Mouse IgG HRP	R & D Systems	HAF007

*Supplementary Table S5: Genes analyzed in the ovarian cancer database.*

Gene	ID
MSI-1	A_23_P139795
MSI-2	A_23_P369479
NUMB	A_23_P88381
NOTCH-3	A_24_P399606
CDKN1A (p21)	A_23_P59210
MYC	A_24_P178011
ALDH4A1	A_24_P263036

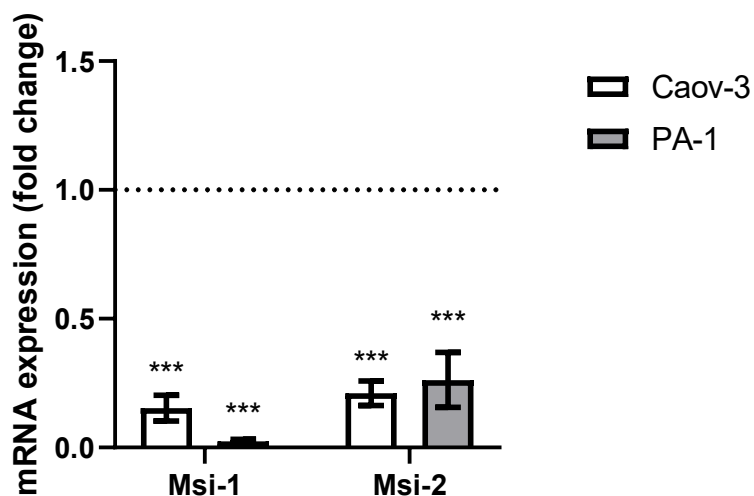
*Supplementary Table S6: Surviving fractions after irradiation in PA-1 cells with and without double knockdown.*

Radiation dose	Control	MSI-1/-2 Knockdown
0 Gy	100	100
2 Gy	41,94	22,98
4 Gy	14,24	9,68
6 Gy	2,82	1,83

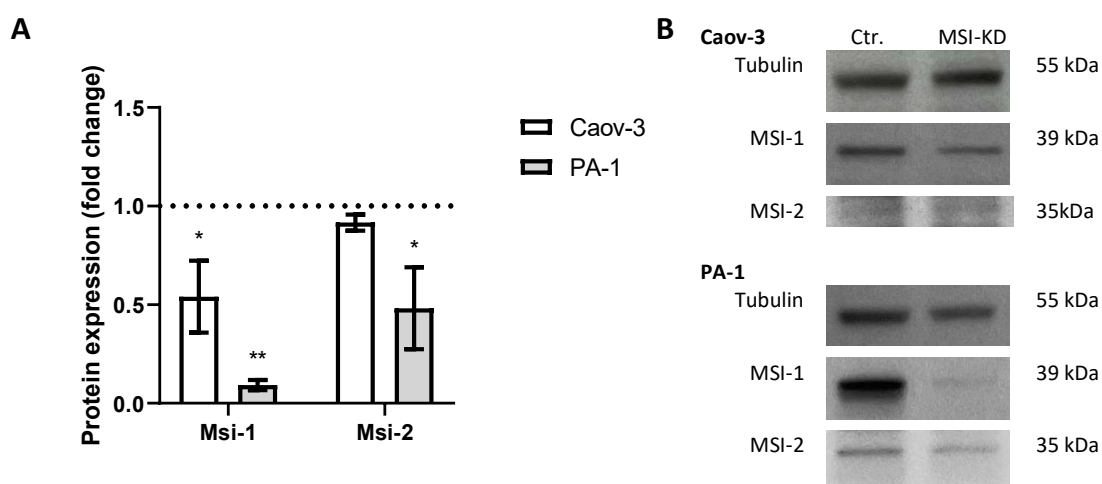
*Supplementary Table S7: Surviving fractions after irradiation in Caov-3 cells with and without double knockdown.*

Radiation dose	Control	MSI-1/-2 Knockdown
0 Gy	100	100
2 Gy	42,03	32,92
4 Gy	7,18	5,82
6 Gy	0,99	0,47

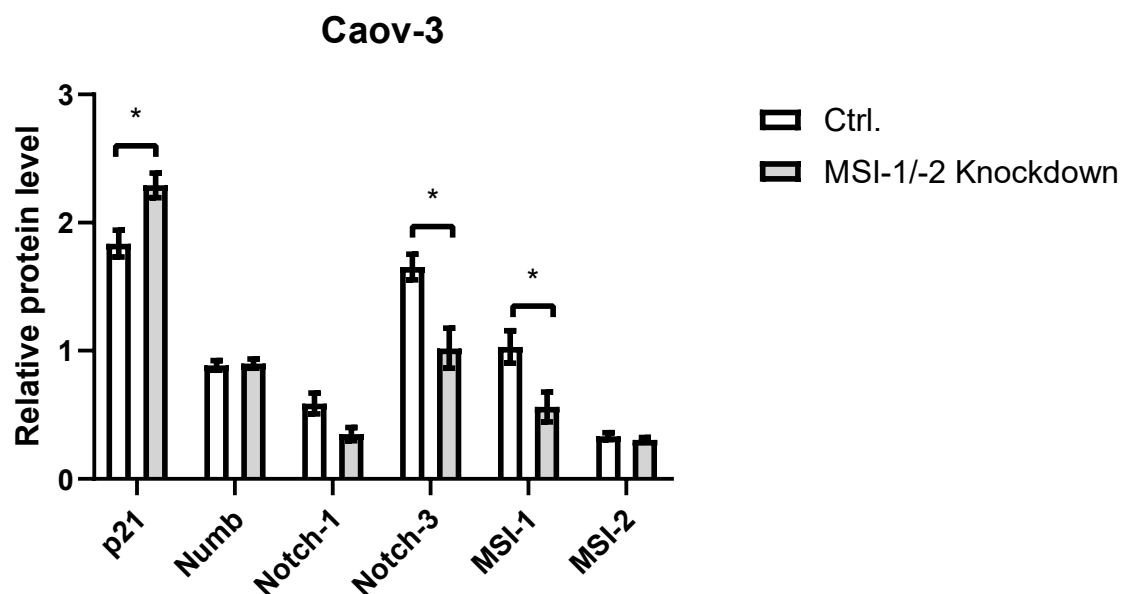
Supplementary Figure S1. Musashi-1 (MSI-1) and Musashi-2 (MSI-2) RNA levels in both cell lines after knockdown with MSI-1 and MSI-2 siRNA, quantified by quantitative polymerase chain reaction (qPCR). mRNAs were repressed by 74% to 85% percent. Cells were transfected with a control siRNA and MSI-1 / -2 siRNAs as detailed in the methods section (at least  $n = 3$ , \*\*\*  $p < 0.001$ , error bars indicate standard error of the mean (s.e.m.)).



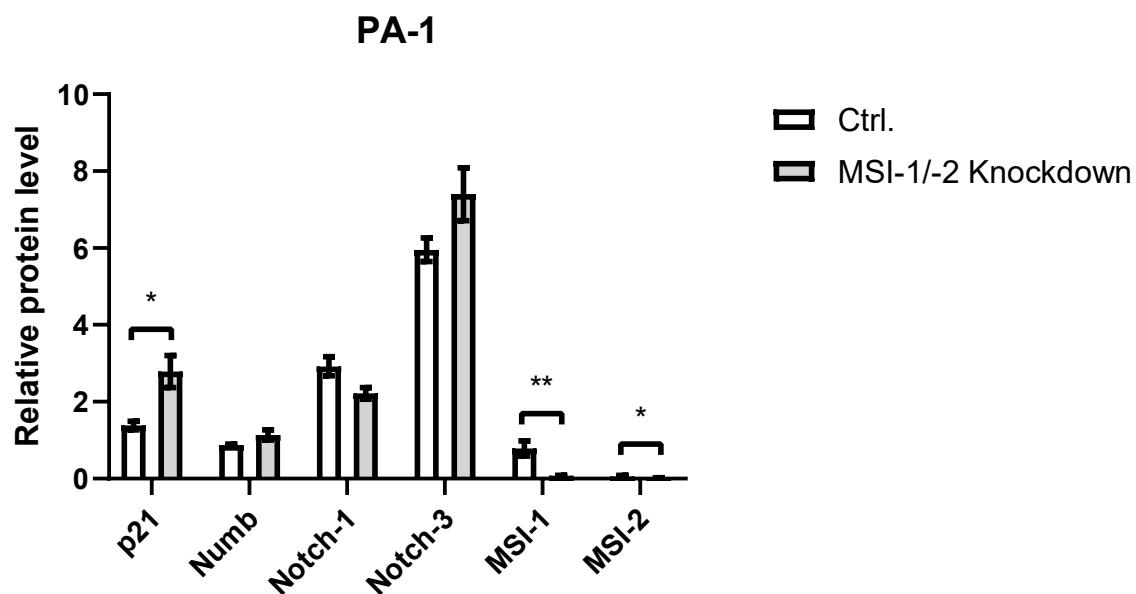
Supplementary figure S2. Musashi-1 (MSI-1) and Musashi-2 (MSI-2) protein levels in both cell lines after knockdown with MSI-1 and MSI-2 siRNA, quantified by Western Blot analysis. Proteins were repressed by at least 50% – 90%, except for MSI-2 in Caov-3. Cells were transfected with a control siRNA and MSI-1/-2 siRNAs as detailed in the methods section (at least  $n = 3$ , \*\*\*  $p < 0.001$ , error bars indicate standard error of the mean (s.e.m.)) **A**: Western Blot results. **B**: representative Western Blot staining.



Supplementary figure S3. Relative protein expression levels in Caov-3 cells. The expression was normalized to Tubulin as reference protein (error bars indicate standard error of the mean (s.e.m.)).



Supplementary figure S4. Relative protein expression levels in PA-1 cells. The expression was normalized to Tubulin as reference protein (error bars indicate standard error of the mean (s.e.m.)).



*Supplementary Figure S5. Representative flow cytometric measurement of ALDH activity using Aldeflour assay in PA-1 cells, shown with a logarithmic x scale. ALDH activity barely exceeded the diethylaminobenzaldehyde (DEAB) control on baseline and no significant changes after knockdown were found.*

