

Supplemental TableS2: List of cell lines used in this study

Cell lines	Origin	Modification	References
HS128, HS196, HS244, HS249, HS128	Human bone-marrow derived mesenchymal stem cells		Amaral A.T. et al PLoS One 2014, 9, e85814.
LAP-35	Ewing sarcoma		Bagnara et al. Int. J Cell Cloning 1990 Nov;8(6):409-24
A673	Ewing sarcoma		CLS Cat#300454/p491_A-673
IOR-BRZ	Ewing sarcoma		Guerzoni C. et al. Clin Cancer Res 2015, 21, 146-156.
IOR-CAR*	Ewing sarcoma		Guerzoni C. et al. Clin Cancer Res 2015, 21, 146-156.
RD-ES	Ewing sarcoma		CLS Cat#300410/p763_RD-ES
SK-ES-1	Ewing sarcoma		CLS Cat# 300435/p738_SK-ES-1
TC-71 *	Ewing sarcoma		Provided by T.J Triche (Children's Hospital, Los Angeles).
SK-N-MC	Ewing sarcoma		ATCC Cat# CRL-2270
PDX-EW#5-C*	PDX Ewing sarcoma		Nanni et al. Sci Rep 2019, 9,12174
PDX-EW#2-C*	PDX Ewing sarcoma		Nanni et al. Sci Rep 2019, 9,12174
TC-71-CD99shRNA	Ewing sarcoma	shRNA plasmid (pSilencer 2.1-U6 Neo vector; Ambion) (5'-GATCCGGCTGGCCATTATT AAGTCTTCAAGAGAGACTT AATAATGGCCAGCCTTTTT GGAAA-3') using the calcium phosphate transfection method.	Rocchi A et al. J Clin Invest 2010, 120, 668-680.
A673/TR/shEF	Ewing sarcoma	shRNA plasmid (pENTR-BLOCK-iT; Invitrogen) (shEF forward, 5'-CACCGCAGCAGAACCCTTC TTATGACGAATCATAAGAA GGGTCTGCTGC-3'; shEF reverse, 5' AAAAGCAGCAGAACCCTT CTTATGATTCTGCATAAGA AGGGTCTGCTGC-3 using lentivirus method	Carrillo J. et al. Clin Cancer Res 2007, 13, 2429-2440.
A673p6TR/pTERshCD99	Ewing sarcoma	pcDNA3.1/6TR (Thermo Fisher Scientific) encoding the reverse tetracycline-responsive transcriptional activator and the plasmid pTER vector, and engineered to express CD99 shRNA Transfection was performed using TransIT-X2 (MIR 6000, Mirus)	Balestra T et al. Mol Cancer Ther 2022 21(1):58-69).
SK-N-MC EV SK-N-MC miR-214-3p#12 SK-N-MC miR-214-3p#34	Ewing sarcoma	pcDNA3.1/V5-His-Topo-expression vector (Invitrogen), miR-214 5' CACCTTTCTCCCTTTCCCC TTA CT TACTCTCC-3' and 5' TGCCTTTCCCCAGTGCCTCT TTCTC-3'. Transfection was performed using Lipofectamine 2000 (ThermoFisher)	Provided by H. Kovar (St. Anna Children's Cancer Research Institute, Vienna).

*TC-71, IOR-CAR and PDX-EW#2-C cells were transiently transfected with pre-miR-214-3p mimic, and PDX-EW#5-C cells were transfected with antagomiR-214-3p or nonspecific control miRNAs (SCR) (30 nM) (assays #AM17100 and #AM171000; Ambion) and siHMGA1(20nM) (M-004597-02-0020 GE Healthcare Dharmacon) or si-GENOME_nontargeting (D-001206-13-05, GE Healthcare Dharmacon) using a TransIT-X2 Dynamic Delivery System (Mir6000, Mirus).