



**Appendix 1.** BMI1 regulated by miRNAs and is involved in EMT and chemotherapy response. miR-429 in renal cell carcinoma[1], miR-194 in endometrial and glioma[2, 3], miR-200b and miR-15b in tongue[4], miR-508-3p in colorectal[5], miR-200c in head and neck, bladder cancer and melanoma[6-8] sensitize tumor cells to chemotherapy and/or inhibit EMT due to BMI1 repression.

**Appendix 2.** Decreased BMI1 expression by drugs, small molecules and negative regulators lead to decreased BMI1 expression.

Drug/negative regulator	Function	Reference
Curcumin	might upregulates miRNAs that target BMI1	[9]
HDACi (VPA , Sodium butyrate)	Transcriptional downregulation of BMI1 gene	[10, 11]
Artemisinin	Inhibition BMI1 at both protein and transcript levels	[12]
PTC-209	Post transcriptional regulation of BMI1	[13-15]
Epigallocatechin-3-gallate	Upregulation self-renewal suppressive-miRNAs, miR-34a, miR-145, and miR-200c	[16]
IL-320	Inhibition of the STAT3 pathway and subsequent suppression of BMI1	[17]
KLF4	BMI1 expression inhibition by direct Binding to Bmi1 promoter	[18]
Wallichoside	BMI1 promoter Inhibition	[19]

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