

**Supplementary Table S1. Selected 23 mRNA list in milk sEVs from BLV-infected cattle.**

<b>Gene name</b>	<b>Gene symbol</b>	<b>Fold change</b>	<b>Functions</b>	<b>Reference</b>
<i>Myoferlin</i>	<i>MYOF</i>	12.67	Tumor metastasis	[32]
<i>Transmembrane protein 156</i>	<i>TMEM156</i>	10.79	Cancer invasion	[33]
<i>Interleukin 33</i>	<i>IL33</i>	6.06	Cancer metastasis	[34]
<i>Ubiquitin conjugating enzyme E2 C</i>	<i>UBE2C</i>	5.61	Tumor progression	[35]
<i>Microtubule associated protein 9</i>	<i>MAP9</i>	3.50	Cancer progression	[36]
<i>Pyruvate dehydrogenase kinase 3</i>	<i>PDK3</i>	3.17	Tumor proliferation	[37]
<i>SPC24 component of NDC80 kinetochore complex</i>	<i>SPC24</i>	3.14	Tumorigenesis	[38]
<i>Cyclin B1</i>	<i>CCNB1</i>	2.50	Cellular proliferation	[39]
<i>MHC class I JSP.1</i>	<i>JSP.1</i>	2.46	Apoptosis	[40]
<i>Transforming growth factor beta receptor 1</i>	<i>TGFBR1</i>	1.51	Cellular-metabolism	[41]
<i>Mohawk homeobox</i>	<i>MKX</i>	1.50	Tissue differentiation	[42]
<i>Bovine major histocompatibility complex</i>	<i>BoLA</i>	1.28	BLV infectivity	[43]
<i>Mitochondrial ribosomal protein L1351</i>	<i>L13</i>	1.26	Immune response	[44]
<i>Synaptosome associated protein 47</i>	<i>SNAP47</i>	1.14	Cancer invasion	[45]
<i>Succinate dehydrogenase complex flavoprotein subunit A</i>	<i>SDHA</i>	1.14	Cellular metabolism	[46]
<i>Cell division cycle 20</i>	<i>CDC20</i>	1.13	Cellular proliferation	[47]
<i>Arginine and serine rich protein 1</i>	<i>RSRP1</i>	1.08	Cell invasion	[48]
<i>Apoptosis resistant E3 ubiquitin protein ligase 1</i>	<i>AREL1</i>	1.01	Anti-apoptosis	[49]
<i>Calbindin 1</i>	<i>CALB1</i>	-1.51	Metabolism	[50]
<i>Integrin subunit beta 2</i>	<i>ITGB2</i>	-1.39	Cancer proliferation	[51]
<i>Hypoxanthine phosphoribosyl transferase 1</i>	<i>HPRT</i>	-1.13	Cell cycle progression	[52]
<i>Stomatin like 2</i>	<i>STOML2</i>	-1.03	Metastasis	[53]
<i>WD repeat domain 89</i>	<i>WDR89</i>	-1.02	Cell cycle	[54]