

AGENT CONCENTRATION			NOMENCLATURE	ERV AFFECTED										EXPERIMENTAL CONDITIONS										REFERENCE		
				TYPE <i>1 refers to a positive signal</i>										ORIGIN	DETECTION METHODS											
				(g)DNA		RNA		Protein		VLP		VINP			VRC		CELL / TISSUE	(g)DNA	(m)RNA	Protein	VLP	VINP	VRC			
C	SN	C	SN	C	SN	C	SN	C	SN	C	SN															
CHEM	5-iodo-2'-deoxyuridine (IUdR)	200 µg/mL	SERV	-	-	1	1	-	1	-	1	-	-	-	-	Chlorocebus sabaeus	AGM Kidney epithelial cells (Vero)	-	RT-PCR (cells and supernatant)	Single-tube fluorescent PERT (STF-PERT) (supernatant)	STF-PERT <u>and</u> RT-PCR (supernatant)	-	-	-	Ma et al., 2011	
CHEM	5-iododeoxyuridine (IUdR)	30 µg/mL	Type-C virus particles	-	-	-	-	-	1	-	1	-	-	-	-	Mus musculus	Mouse fibroblast cells (K-BALB)	-	-	TaqMan fluorescent probe-based PERT (TM-PERT), STF-PERT (supernatant)	TEM, TM-PERT, STF-PERT (supernatant)	-	-	-	Khan et al., 2001	
CHEM	5-iododeoxyuridine (IUdR)	30 µg/mL	endogenous ecotropic MuLV, endogenous xenotropic MuLV	-	-	-	-	-	1	-	-	1	-	-	1	Mus musculus	Mouse fibroblast cells (K-BALB)	-	-	Manganese-dependent RT-assay (supernatant target cells)	-	infectivity assay (cells)	Manganese-depedent RT-assay (supernatant target cells)	-	-	Khan et al., 2001
CHEM	Azacitidine (Aza-C)	2 µg/mL (8.19 µM)	Type-A virus particles, Type C-virus particles	-	-	-	-	-	1	-	1	-	-	-	-	Mus musculus	Mouse fibroblast cells (K-BALB)	-	-	STF-PERT (supernatant)	TEM, STF-PERT (supernatant)	-	-	-	Khan et al., 2001	
CHEM	Azacitidine (Aza-C)	313 ng/mL (1.28 µM)	SERV	-	-	1	-	-	-	-	-	-	-	-	-	Chlorocebus sabaeus	Kidney epithelial cells (Vero 0111)	-	RNA sequencing (cells)	-	-	-	-	-	Sakuma et al., 2018	
CHEM	Azacitidine (Aza-C)	1.25 µg/mL (5.12 µM)	SERV	-	-	-	1	-	1	-	1	-	-	-	-	Chlorocebus sabaeus	AGM Kidney epithelial cells (Vero)	-	RT-PCR (supernatant)	Single-tube fluorescent PERT (STF-PERT) (supernatant)	TEM, STF-PERT <u>and</u> RT-PCR (supernatant)	-	-	-	Ma et al., 2011	
CHEM	Azacitidine (Aza-C)	500 nM	HERV-W1 (ERVWE1)	-	-	1	-	1	-	-	-	-	-	-	-	Homo sapiens	Epithelial ovarian cancer (EOC) cells: primary, A2780, Hey, TykNu	-	RT-qPCR, TAG-aided sense/antisense detection (TASA-TD) PCR (cells)	Western Blot (tested: A2780 cells)	-	-	-	-	Chiappinelli et al., 2015	
CHEM	Azacitidine (Aza-C)	500 nM	ERV-3	-	-	1	-	1	-	-	-	-	-	-	-	Homo sapiens	Epithelial ovarian cancer (EOC) cells: A2780, Hey, TykNu	-	RT-qPCR (cells)	Western Blot (tested: A2780 cells)	-	-	-	-	Chiappinelli et al., 2015	

CHEM	Azacitidine (Aza-C)	500 nM	HERV-K	-	-	1	-	-	-	-	-	-	-	-	Homo sapiens	Epithelial ovarian cancer (EOC) cells: A2780, Hey, TykNu	-	RT-qPCR (cells)	-	-	-	-	Chiappinelli et al., 2015
CHEM	Azacitidine (Aza-C)	500 nM	HERV-H	-	-	1	-	-	-	-	-	-	-	-	Homo sapiens	Epithelial ovarian cancer (EOC) cells: A2780, Hey, TykNu	-	RT-qPCR (cells)	-	-	-	-	Chiappinelli et al., 2015
CHEM	Azacitidine (Aza-C)	500 nM	HERV-Fc2	1	-	1	-	-	-	-	-	-	-	-	Homo sapiens	Epithelial ovarian cancer (EOC) cells: A2780, Hey, TykNu	methylation-specific PCR (tested: A2780 cells)	RT-qPCR, TAG-aided sense/antisense detection (TASA-TD) PCR (cells)	-	-	-	-	Chiappinelli et al., 2015
CHEM	calcium ionophore A23187	0.2 µM	PERV	-	-	-	-	1	-	1	-	-	-	-	Sus scrofa	primary peripheral blood mononuclear cells (PMBCs)	-	-	RT-activity assay (supernatant PMBC)	RT-activity assay (PMBC supernatant)	-	-	Wilson, Wong, et al., 1998
CHEM	dimethylbenzanthracene (DMBA)	0.4 % (50 µl dorsal injection mice)	Type-C virus particles	-	-	-	-	1	-	1	-	-	-	-	Mus musculus	Melanoma cells (JB/RH)	-	-	ELISA, flow cytometry (cells)	TEM (cells)	-	-	Leong et al., 1988
CHEM	dimethylbenzanthracene (DMBA)	0.4 % (50 µl dorsal injection mice)	Type-C virus particles	-	-	-	-	1	-	1	-	-	-	-	Mus musculus	Melanoma cells (JB/MS)	-	-	ELISA, flow cytometry (cells)	TEM (cells)	-	-	Leong et al., 1988
CHEM	Interleukin 13 (IL-13)	50 ng/mL	HERV-W1	-	-	1	-	1	-	-	-	-	-	-	Homo sapiens	primary human prostate cancer cells (pPCa), human prostate cell line (PC3)	-	qPCR (cells)	Western Blot, Immunofluorescence (cells)	-	-	-	Uygur, Leikina et al., 2019
CHEM	Interleukin 4 (IL-4)	50 ng/mL	HERV-W1	-	-	1	-	1	-	-	-	-	-	-	Homo sapiens	primary human prostate cancer cells (pPCa), human prostate cell line (PC3)	-	qPCR (cells)	Western Blot, Immunofluorescence (cells)	-	-	-	Uygur, Leikina et al., 2019
CHEM	Lipopoly-saccharide (LPS)	5 µg/mL	MuLV-ERV	-	-	1	1	-	-	-	1	-	-	-	Mus musculus	primary B lymphocytes from spleen single cell suspension	-	RT-PCR (cells, supernatant), cDNA sequencing (supernatant)	-	RT-PCR <u>and</u> cDNA sequencing (supernatant)	-	-	Kwon et al., 2011
CHEM	Lipopoly-saccharide (LPS)	5 µg/mL	MuLV-ERV	-	-	-	1	-	-	-	1	-	-	-	Mus musculus	primary B lymphocytes from thymus single cell suspension	-	RT-PCR (cells, supernatant), cDNA sequencing (supernatant)	-	RT-PCR <u>and</u> cDNA sequencing (supernatant)	-	-	Kwon et al., 2011

CHEM	lipopoly-saccharide (LPS)	5 µg/mL	MuLV-ERV	-	-	1	1	-	-	-	1	-	-	-	-	Mus musculus	primary B lymphocytes from bone marrow single cell suspension	-	RT-PCR (cells, supernatant), cDNA sequencing (supernatant)	-	RT-PCR <u>and</u> cDNA sequencing (supernatant)	-	-	Kwon et al., 2011
CHEM	Lipopoly-saccharide (LPS)	5 µg/mL	MuLV-ERV	-	-	1	1	-	-	-	1	-	-	-	-	Mus musculus	primary B lymphocytes from lymphnode (axillary, cervical, inguinal, mesenteric) single cell suspension	-	RT-PCR (cells, supernatant), cDNA sequencing (supernatant)	-	RT-PCR <u>and</u> cDNA sequencing (supernatant)	-	-	Kwon et al., 2011
CHEM	Lipopoly-saccharide (LPS)	5 µg/mL	MuLV-ERV	-	-	-	1	-	-	-	1	-	-	-	-	Mus musculus	primary immature T lymphocyte from bone marrow single cell suspension	-	RT-PCR, cDNA sequencing (supernatant)	-	RT-PCR <u>and</u> cDNA sequencing (supernatant)	-	-	Kwon et al., 2011
CHEM	lipopoly-saccharide (LPS)	5 µg/mL	MuLV-ERV	-	-	1	1	-	1	-	1	-	-	-	-	Mus musculus	primary splenocytes	-	RT-PCR, cDNA sequencing (cells, supernatant)	Western Blot (supernatant)	RT-PCR (supernatant), Western Blot (supernatant)	-	-	Kwon et al., 2011
CHEM	mitogen (<u>likely</u> Phytohemagglutinin (PHA))	15 µg/mL	PERV	1	-	-	1	-	1	-	1	1	-	-	-	Sus scrofa	peripheral blood mononuclear cells (PMBCs)	Nested PCR (target cells)	RT-qPCR (supernatant)	RT-activity assay (supernatant)	RT-qPCR, RT-activity assay (supernatant)	Coculture, nested PCR (target cells)	-	Rodrigues Costa et al., 2014
CHEM	mitogen: Phorbol myristate acetate (PMA)	10 ng/mL	PERV	-	-	1	-	-	1	-	1	1	-	-	1	Sus scrofa	primary peripheral blood mononuclear cells (PMBCs)	-	RT-PCR, cDNA sequencing (target cells)	RT-activity assay (supernatant PMBC, target cells)	TEM, RT-activity assay (PBMC supernatant)	Infectivity assay via coculturing, RT-PCR, cDNA sequencing (target cells)	RT-activity assay (supernatant target cells)	Wilson, Wong, et al., 1998
CHEM	mitogen: Phytohemagglutinin (PHA)	0.2 µM	PERV	-	-	1	-	-	1	-	1	1	-	-	1	Sus scrofa	primary peripheral blood mononuclear cells (PMBCs)	-	RT-PCR, cDNA sequencing (target cells)	RT-activity assay (supernatant PMBC, target cells)	TEM, RT-activity assay (PBMC supernatant)	Infectivity assay via coculturing, RT-PCR, cDNA sequencing (target cells)	RT-activity assay (supernatant target cells)	Wilson, Wong, et al., 1998
CHEM	Polybrene	6 µg/mL	PERV-A/C	-	-	-	-	-	-	-	-	-	-	-	-	Sus scrofa	Human HEK293 producing recombinant PERV-A/C (293/5°)	-	RT-qPCR (supernatant target cells)	RT-activity assay (supernatant target cells)	-	infectivity assay, nested PCR (target cells)	RT-activity assay, RT-qPCR (supernatant target cells)	Rodrigues Costa et al., 2014

CHEM	Silver nanoparticle s (AgNP) - 7 and 50 nm	5 µg/mL	HERV-W1 (ERVWE1)	-	-	1	-	1	-	-	-	-	-	-	-	Homo sapiens	Human T-lymphplastic leukaemia cell line (MOLT-4)	-	RT-PCR (cells)	Western Blot (cells)	-	-	-	-	Alqahtani et al., 2016
CHEM	Silver nanoparticle s (AgNP) - 7 and 50 nm	5 µg/mL	HERV-W1 (ERVWE1)	-	-	1	-	1	-	-	-	-	-	-	-	Homo sapiens	Fanconi aneemia acute myeloid leukaemia cell line (FA-AML1)	-	RT-PCR (cells)	Western Blot (cells)	-	-	-	-	Alqahtani et al., 2016
CHEM	Sodium butyrate (NaBut)	0.9 M	SERV	-	-	1	-	-	-	-	-	-	-	-	-	Chlorocebus sabaeus	AGM Kidney epithelial cells (Vero)	-	RT-PCR (cells and supernatant)	STF-PERT (supernatant)	STF-PERT and RT-PCR (supernatant)	-	-	-	Ma et al., 2011
CHEM	TNF-alpha	10 ng/mL	ERVWE1	-	-	1	-	1	-	-	-	-	-	-	-	Homo sapiens	Human squamous carcinoma cells (SCC-9)	-	RT-qPCR (cells)	Western Blot, immunofluorescence (cells)	-	-	-	-	Yan et al., 2017
CHEM	TNF-alpha	10 ng/mL	ERVWE1	-	-	1	-	1	-	-	-	-	-	-	-	Homo sapiens	primary human umbilical vein endothelial cells (HUVECs)	-	RT-qPCR (cells)	Western Blot, immunofluorescence (cells)	-	-	-	-	Yan et al., 2017
PHYS	UV radiation	NA	Type-C virus particles	-	-	-	-	-	-	1	-	-	-	-	-	Mus musculus	Melanoma cells (K1735)	-	-	ELISA, flow cytometry (cells)	TEM (cells)	-	-	-	Leong et al., 1988
PHYS	X-ray	8 Gy (2.31 Gy/min)	MER21C	-	-	1	-	-	-	-	-	-	-	-	-	Homo sapiens	Lung adenocarcinoma epithelial cells (A549)	-	RT-qPCR (cells)	-	-	-	-	-	Lee et al., 2020
PHYS	X-ray	8 Gy (2.31 Gy/min)	MER57B1	-	-	1	-	-	-	-	-	-	-	-	-	Homo sapiens	Lung adenocarcinoma epithelial cells (A549)	-	RT-qPCR (cells)	-	-	-	-	-	Lee et al., 2020
PHYS	X-ray	8 Gy (2.31 Gy/min)	MLT1C49	-	-	1	-	-	-	-	-	-	-	-	-	Homo sapiens	Lung adenocarcinoma epithelial cells (A549)	-	RT-qPCR (cells)	-	-	-	-	-	Lee et al., 2020

	DNA		RNA		P		VLP		VINP		VRC	
	C	SN	C	SN	C	SN	C	SN	C	SN	C	SN
Method detected parameter	2	0	23	9	10	10	3	14	4	0	0	3
Method did not detect parameter	0	0	1	2	1	2	0	1	1	0	0	1

	DNA		RNA		P		VLP		VINP		VRC	
Number of entries per successful detection	2		27		20		17		4		3	