In-Vitro Antiviral Screening Report

Task Order Number:	B12

Organization:	Valdosta State University
Submitter Name:	Manning
SRF #:	2022-104-001
Email:	tmanning@valdosta.edu
Test Site:	UAB
Investigator:	James
Test Date *(m/dd/yy)*:	1/18/23
Report Date *(Mmm-yy)*:	Jan-23

Virus Screened:	Cowpox virus
Virus Strain:	Brighton
Cell Line:	HFF
Vehicle:	DMSO
Drug Conc. Range:	0.032-100 µg/mL
Control Conc. Range:	0.048-150 µM
Experiment Number:	23-cpxv-006

Control Drug Name	Control Assay Order	Control Assay Name	EC50	EC90	CC50	SI50	SI90
Cidofovir	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	17.56	>150.00	>150.00	>9	1

EC50 - compound concentration that reduces viral replication by 50%
EC90 - compound concentration that reduces viral replication by 90%
CC50 - compound concentration that reduces cell viability by 50%

SI50 - CC50/EC50
SI90 - CC50/EC90

Notes

Moderately active: C-2022-60694 and C-2022-60695

Screening Results

Product Number	ARB No	Date Received m/dd/yy	Trial No	Compound Name/ID	Drug Assay Order	Drug Assay Name	EC50	EC90	CC50	SI50	SI90
C-2022-60687		12/13/22	-	Copper(II)chloride dihydrate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	57.74	<3	<3
C-2022-60691		12/13/22	-	Copper(II)decanoate dichloride salt	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>100.00	>100.00	>100.00	1	1
C-2022-60693		12/13/22	-	Copper(II)Docosahexaenoate chloride salt	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	49.67	<2	<2
C-2022-60689		12/13/22	-	Copper(II)sucrose - dichloride	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	54.10	<3	<3
C-2022-60690		12/13/22	-	Decanoic acid	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	87.87	<4	<4
C-2022-60692		12/13/22	-	Docosahexaenoic acid	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	64.72	<3	<3
C-2022-60688		12/13/22	-	Sucrose	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>100.00	>100.00	>100.00	1	1
C-2022-60694		12/13/22	-	Tecovirimat	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	8.37	>100.00	>100.00	>12	1
C-2023-60784		12/13/22	-	Tecovirimat-Cu(II)	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>100.00	>100.00	>100.00	1	1
C-2022-60698		12/13/22	-	TPOXX_Cu_Deca_DODO_SUC	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	48.48	<2	<2
C-2022-60697		12/13/22	-	TPOXX_Cu_decanoate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	89.52	<4	<4
C-2022-60696		12/13/22	-	TPOXX_Cu_Docosahexaenoate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	47.17	<2	<2

Screening Results

Product Number	ARB No	Date Received m/dd/yy	Trial No	Compound Name/ID	Drug Assay Order	Drug Assay Name	EC50	EC90	CC50	SI50	SI90
C-2022-60695		12/13/22	-	TPOXX_Cu_Sucrose	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	3.78	>100.00	>100.00	>26	1

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Test Site:	UAB
Investigator:	James
Test Date *(m/dd/yy)*:	1/18/23
Report Date *(Mmm-yy)*:	Jan-23

Virus Screened:	Vaccinia virus
Virus Strain:	Copenhagen
Cell Line:	HFF
Vehicle:	DMSO
Drug Conc. Range:	0.032-100 µg/mL
Control Conc. Range:	0.048-150 µM
Experiment Number:	23-vacv-007

Control Drug Name	Control Assay Order	Control Assay Name	EC50	EC90	CC50	SI50	SI90
Cidofovir	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	4.20	>150.00	>150.00	>36	1

EC50 - compound concentration that reduces viral replication by 50%

EC90 - compound concentration that reduces viral replication by 90%

CC50 - compound concentration that reduces cell viability by 50%

SI50 - CC50/EC50

SI90 - CC50/EC90

Notes

Highly active: C-2022-60694, C-2023-60784, C-2022-60698, C-2022-60697, C-2022-60696 and C-2022-60695

Screening Results

Product Number	ARB No	Date Received m/dd/yy	Trial No	Compound Name/ID	Drug Assay Order	Drug Assay Name	EC50	EC90	CC50	SI50	SI90
C-2022-60687		12/13/22	-	Copper(II)chloride dihydrate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	53.37	<3	<3
C-2022-60691		12/13/22	-	Copper(II)decanoate dichloride salt	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>100.00	>100.00	>100.00	1	1
C-2022-60693		12/13/22	-	Copper(II)Docosahexaenoate chloride salt	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	47.27	<2	<2
C-2022-60689		12/13/22	-	Copper(II)sucrose - dichloride	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	55.77	<3	<3
C-2022-60690		12/13/22	-	Decanoic acid	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>100.00	>100.00	>100.00	1	1
C-2022-60692		12/13/22	-	Docosahexaenoic acid	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>20.00	>20.00	65.75	<3	<3
C-2022-60688		12/13/22	-	Sucrose	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>100.00	>100.00	>100.00	1	1
C-2022-60694		12/13/22	-	Tecovirimat	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.10	>100.00	>100.00	>1031	1
C-2023-60784		12/13/22	-	Tecovirimat-Cu(II)	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.10	>100.00	>100.00	>1000	1
C-2022-60698		12/13/22	-	TPOXX_Cu_Deca_DODO_SUC	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	<0.03	>20.00	49.26	>1539	<2
C-2022-60697		12/13/22	-	TPOXX_Cu_decanoate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.08	>20.00	86.58	1043	<4
C-2022-60696		12/13/22	-	TPOXX_Cu_ Docosahexaenoate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	<0.03	>20.00	47.45	>1483	<2

Screening Results

Product Number	ARB No	Date Received m/dd/yy	Trial No	Compound Name/ID	Drug Assay Order	Drug Assay Name	EC50	EC90	CC50	SI50	SI90
C-2022-60695		12/13/22	-	TPOXX_Cu_Sucrose	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.05	>100.00	>100.00	>2128	1

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Email:	tmanning@valdosta.edu
Test Site:	UAB
Investigator:	James
Test Date *(m/dd/yy)*:	1/26/23
Report Date *(Mmm-yy)*:	Jan-23

Virus Screened:	Cowpox virus
Virus Strain:	CPXVR(SF) (Resistant Isolate)
Cell Line:	HFF
Vehicle:	DMSO
Drug Conc. Range:	0.032-100 µg/mL
Control Conc. Range:	0.048-150 µM
Experiment Number:	23-cpxvR-006

Control Drug Name	Control Assay Order	Control Assay Name	EC50	EC90	CC50	SI50	SI90
Cidofovir	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	>150.00	>150.00	>150.00	1	1
N-Methanocarbamate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	17.47	>150.00	>150.00	>9	1

EC50 - compound concentration that reduces viral replication by 50%
EC90 - compound concentration that reduces viral replication by 90%
CC50 - compound concentration that reduces cell viability by 50%

SI50 - CC50/EC50
SI90 - CC50/EC90

Notes

Highly active: C-2022-60694 and C-2022-60695

Screening Results

Product Number	ARB No	Date Received m/dd/yy	Trial No	Compound Name/ID	Drug Assay Order	Drug Assay Name	EC50	EC90	CC50	SI50	SI90
C-2022-60694		12/13/22	-	Tecovirimat	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	1.27	>100.00	>100.00	>79	1
C-2022-60695		12/13/22	-	TPOXX_Cu_Sucrose	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.77	>100.00	>100.00	>131	1

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Email:	tmanning@valdosta.edu
Test Site:	UAB
Investigator:	James
Test Date *(m/dd/yy)*:	1/26/23
Report Date *(Mmm-yy)*:	Jan-23

Virus Screened:	Vaccinia virus
Virus Strain:	CDVR-1A (Resistant Isolate)
Cell Line:	HFF
Vehicle:	DMSO
Drug Conc. Range:	0.032-100 µg/mL
Control Conc. Range:	0.048-150 µM
Experiment Number:	23-vacvR-005

Control Drug Name	Control Assay Order	Control Assay Name	EC50	EC90	CC50	SI50	SI90
Cidofovir	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	95.73	>150.00	>150.00	>2	1
N-Methanocarbamate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	1.18	>150.00	>150.00	>128	1

EC50 - compound concentration that reduces viral replication by 50%
EC90 - compound concentration that reduces viral replication by 90%
CC50 - compound concentration that reduces cell viability by 50%

SI50 - CC50/EC50
SI90 - CC50/EC90

Notes

Highly active: C-2022-60694, C-2023-60784, C-2022-60698, C-2022-60697, C-2022-60696 and C-2022-60695

Screening Results

Product Number	ARB No	Date Received m/dd/yy	Trial No	Compound Name/ID	Drug Assay Order	Drug Assay Name	EC50	EC90	CC50	SI50	SI90
C-2022-60694		12/13/22	-	Tecovirimat	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.56	>100.00	>100.00	>180	1
C-2023-60784		12/13/22	-	Tecovirimat-Cu(II)	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.67	>100.00	>100.00	>150	1
C-2022-60698		12/13/22	-	TPOXX_Cu_Deca_DODO_SUC	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.47	>20.00	56.51	120	<3
C-2022-60697		12/13/22	-	TPOXX_Cu_decanoate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.44	>20.00	71.18	162	<4
C-2022-60696		12/13/22	-	TPOXX_Cu_Docosahexaenoate	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.62	>20.00	61.98	100	<3
C-2022-60695		12/13/22	-	TPOXX_Cu_Sucrose	Primary	CellTiter-Glo *(Cytopathic effect/Toxicity)*	0.40	>100.00	>100.00	>248	1