

Tables S1. The structure and bioactivity information of known dual inhibitors

COMPOUND_KEY	CANONICAL_SMILES	STANDARD_TYPE	RELATION	STANDARD_VALUE	STANDARD_UNITS	PREFERENCE	Reference
4s	<chem>[O-][N+](=O)c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=O)NC3=O)c2c4ccccc4)c5ccccc5</chem>	IC50	=	150	nM	p53-binding protein Mdm-2	CHEMBL3220103
4s	<chem>[O-][N+](=O)c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=O)NC3=O)c2c4ccccc4)c5ccccc5</chem>	IC50	=	680	nM	Protein Mdm4	CHEMBL3220103
4t	<chem>[O-][N+](=O)c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)c5ccccc5</chem>	IC50	=	170	nM	p53-binding protein Mdm-2	CHEMBL3217780
4t	<chem>[O-][N+](=O)c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)c5ccccc5</chem>	IC50	=	630	nM	Protein Mdm4	CHEMBL3217780
44	<chem>BrC1ccc(cc1)C2N(CCCn3ccnc3)C(=O)C(=C2C(=O)c4ccccc4)OC5CCCCC5</chem>	Ki	=	490	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL2180455
44	<chem>BrC1ccc(cc1)C2N(CCCn3ccnc3)C(=O)C(=C2C(=O)c4ccccc4)OC5CCCCC5</chem>	Ki	=	17930	nM	Tumour suppressor protein p53/Mdm4	CHEMBL2180455
11e	<chem>BrC1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2C4CC4)c5ccccc5</chem>	IC50	=	1600	nM	p53-binding protein Mdm-2	CHEMBL3220118
11e	<chem>BrC1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2C4CC4)c5ccccc5</chem>	IC50	=	3428000	nM	Protein Mdm4	CHEMBL3220118
11g	<chem>BrC1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)C5CC5</chem>	IC50	=	2200	nM	p53-binding protein Mdm-2	CHEMBL3220310
11g	<chem>BrC1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)C5CC5</chem>	IC50	=	5322000	nM	Protein Mdm4	CHEMBL3220310
3	<chem>CC(C)(C)C[C@H]1N[C@H]([C@H](c2cccc(Cl)c2F)[C@@]13C(=O)Nc4cc(Cl)ccc34)C(=O)NCCN5CCOCC5</chem>	Ki	=	3	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL379173
3	<chem>CC(C)(C)C[C@H]1N[C@H]([C@H](c2cccc(Cl)c2F)[C@@]13C(=O)Nc4cc(Cl)ccc34)C(=O)NCCN5CCOCC5</chem>	Ki	=	55000	nM	Tumour suppressor protein p53/Mdm4	CHEMBL379173
11b	<chem>CC(C)(C)c1cc(C=C2C(=O)NC(=S)NC2=O)c(c3ccc(c3)n1c4ccc(Br)cc4</chem>	IC50	=	760	nM	p53-binding	CHEMBL322011

									g protein Mdm-2 Protein Mdm4	5 5
11b	<chem>CC(C)(C)c1cc(C=C2C(=O)NC(=S)NC2=O)c(c3ccc cc3)n1c4ccc(Br)cc4</chem>	IC50	=	963000	nM				CHEMB L322011	5
11c	<chem>CC(C)(C)c1cc(C=C2C(=O)NC(=S)NC2=O)c(c3ccc cc3)n1c4ccc(Cl)cc4</chem>	IC50	=	1100	nM			p53- bindin g	CHEMB L322011	6
11c	<chem>CC(C)(C)c1cc(C=C2C(=O)NC(=S)NC2=O)c(c3ccc cc3)n1c4ccc(Cl)cc4</chem>	IC50	=	1684000	nM			protein Mdm-2 Protein Mdm4	CHEMB L322011	6
3	<chem>CC(C)CCn1enc(c2ccccc2)c1c3c[nH]c4cc(Cl)ccc34</chem>	IC50	=	900	nM			Tumou r suppre ssor p53/on coprote in	CHEMB L202432	1
3	<chem>CC(C)CCn1enc(c2ccccc2)c1c3c[nH]c4cc(Cl)ccc34</chem>	IC50	=	18000	nM			Mdm2 Protein Mdm4	CHEMB L202432	1
41	<chem>CC(C)OC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br) cc3)C(=O)c4ccccc4</chem>	Ki	=	260	nM			Tumou r suppre ssor p53/on coprote in	CHEMB L218012	2
41	<chem>CC(C)OC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br) cc3)C(=O)c4ccccc4</chem>	Ki	=	2680	nM			Mdm2 Tumou r suppre ssor protein p53/M dm4	CHEMB L218012	2
RO-5963	<chem>Cc1c(Cl)ccc2c(\C=C\3/NC(=O)N(C(C(=O)NC(CO CO)c4ccc(F)c(F)c4)C3=O)c[nH]c12</chem>	IC50	=	17	nM			p53- bindin g protein Mdm-2 Protein Mdm4	CHEMB L322031	2
RO-5963	<chem>Cc1c(Cl)ccc2c(\C=C\3/NC(=O)N(C(C(=O)NC(CO CO)c4ccc(F)c(F)c4)C3=O)c[nH]c12</chem>	IC50	=	25	nM			protein Mdm-2 Protein Mdm4	CHEMB L322031	2
47	<chem>CCCOC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br)cc 3)C(=O)c4ccccc4</chem>	Ki	=	6970	nM			Tumou r suppre ssor p53/on coprote in	CHEMB L218045	8
47	<chem>CCCOC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br)cc 3)C(=O)c4ccccc4</chem>	Ki	=	9320	nM			Mdm2 Tumou r suppre ssor protein p53/M dm4	CHEMB L218045	8
4v	<chem>CCN1C(=O)N(CC)C(=O)C(=Cc2cc(c3ccccc3)n(c4 ccc(Br)cc4)c2c5ccccc5)C1=O</chem>	IC50	=	890	nM			p53- bindin g protein Mdm-2	CHEMB L322010	5
4v	<chem>CCN1C(=O)N(CC)C(=O)C(=Cc2cc(c3ccccc3)n(c4 ccc(Br)cc4)c2c5ccccc5)C1=O</chem>	Inhibition	=	74	%			Protein Mdm4	CHEMB L322010	

									5
40	<chem>CCOC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br)cc3)C(=O)c4ccccc4</chem>	Ki	=	690	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL2180121		
40	<chem>CCOC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br)cc3)C(=O)c4ccccc4</chem>	Ki	=	38910	nM	Tumour suppressor protein p53/Mdm4	CHEMBL2180121		
11d	<chem>C1c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2C4CC4)c5ccccc5</chem>	IC50	=	1600	nM	p53-binding protein Mdm-2	CHEMBL3220117		
11d	<chem>C1c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2C4CC4)c5ccccc5</chem>	IC50	=	3486000	nM	Protein Mdm4	CHEMBL3220117		
11f	<chem>C1c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)C5CC5</chem>	IC50	=	2100	nM	p53-binding protein Mdm-2	CHEMBL3220309		
11f	<chem>C1c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)C5CC5</chem>	IC50	=	4916000	nM	Protein Mdm4	CHEMBL3220309		
4c	<chem>C1c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)c5ccccc5</chem>	IC50	=	110	nM	p53-binding protein Mdm-2	CHEMBL3220088		
4c	<chem>C1c1ccc(cc1)n2c(cc(C=C3C(=O)NC(=S)NC3=O)c2c4ccccc4)c5ccccc5</chem>	IC50	=	4200	nM	Protein Mdm4	CHEMBL3220088		
5	<chem>C1c1ccc(Cn2enc(c3ccccc3)c2c4c([nH]c5cc(Cl)ccc45)C(=O)NCCN6CCOCC6)cc1</chem>	IC50	=	30	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL2024323		
5	<chem>C1c1ccc(Cn2enc(c3ccccc3)c2c4c([nH]c5cc(Cl)ccc45)C(=O)NCCN6CCOCC6)cc1</chem>	IC50	=	19000	nM	Protein Mdm4	CHEMBL2024323		
4	<chem>C1c1ccc(Cn2enc(c3ccccc3)c2c4c([nH]c5cc(Cl)ccc45)cc1</chem>	IC50	=	200	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL2024322		
4	<chem>C1c1ccc(Cn2enc(c3ccccc3)c2c4c([nH]c5cc(Cl)ccc45)cc1</chem>	IC50	=	22000	nM	Protein Mdm4	CHEMBL2024322		
14, WK298	<chem>CN(C)CCCN(C)[C@H]1CCN(C1)C(=O)c2[nH]c3cc(Cl)ccc3c2c4c(ncn4Cc5ccc(Cl)cc5)c6ccccc6</chem>	IC50	=	190	nM	p53-binding protein Mdm-2	CHEMBL1236726		
WK298	<chem>CN(C)CCCN(C)[C@H]1CCN(C1)C(=O)c2[nH]c3cc(Cl)ccc3c2c4c(ncn4Cc5ccc(Cl)cc5)c6ccccc6</chem>	Ki	=	109	nM	p53-binding protein Mdm-2	CHEMBL123672		

								g protein Mdm-2 Protein Mdm4	6 CHEMB L123672 6
14, WK298	<chem>CN(C)CCCN(C)[C@H]1CCN(C1)C(=O)c2[nH]c3cc(Cl)ccc3c2c4c(nen4Ce5ccc(Cl)cc5)c6ccccc6</chem>	IC50	=	19700	nM				
6	<chem>CN(C)CCCN(C)[C@H]1CCN(C1)C(=O)c2[nH]c3cc(Cl)ccc3c2c4c(nen4Ce5ccc(Cl)cc5)c6ccccc6</chem>	Ki	=	11000	nM			Tumou r suppre ssor protein p53/M dm4	CHEMB L123672 6
1a, WW298	<chem>CN(C)CCCN(C)C1CCN(C1)C(=O)c2[nH]c3cc(Cl)ccc3c2c4c(Ce5ccc(Cl)cc5)nen4c6ccccc6</chem>	IC50	=	190	nM			p53- bindin g protein Mdm-2 Protein Mdm4	CHEMB L322031 3
1a, WW298	<chem>CN(C)CCCN(C)C1CCN(C1)C(=O)c2[nH]c3cc(Cl)ccc3c2c4c(Ce5ccc(Cl)cc5)nen4c6ccccc6</chem>	IC50	=	20000	nM			protein Mdm-2 Protein Mdm4	CHEMB L322031 3
10d	<chem>CNC(=O)C(=Cc1cc(c2ccccc2)n(c3ccc(Cl)cc3)c1c4ccccc4)C(=O)NC</chem>	IC50	=	7600	nM			p53- bindin g protein Mdm-2 Protein Mdm4	CHEMB L322011 2
10d	<chem>CNC(=O)C(=Cc1cc(c2ccccc2)n(c3ccc(Cl)cc3)c1c4ccccc4)C(=O)NC</chem>	IC50	=	30000	nM			protein Mdm-2 Protein Mdm4	CHEMB L322011 2
1	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	IC50	=	18	nM			p53- bindin g protein Mdm-2	CHEMB L191334
1	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	Kd	=	700	nM			p53- bindin g protein Mdm-2	CHEMB L191334
Nutlin-3	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	Ki	=	36	nM			protein Mdm-2 p53- bindin g protein Mdm-2	CHEMB L191334
Nutlin-3a	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	IC50	=	10	nM			Tumou r suppre ssor p53/on coprote in Mdm2	CHEMB L191334
Nutlin-3	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	Ki	=	55	nM			Tumou r suppre ssor p53/on coprote in Mdm2 Protein Mdm4	CHEMB L191334
Nutlin-3a	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	Kd	=	25000	nM			Tumou r suppre ssor protein p53/M dm4	CHEMB L191334
Nutlin-3a	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	Ki	=	5860	nM				CHEMB L191334

4o	<chem>COc1ccc(cc1)n2c(cc(C=C3C(=O)NC(=O)NC3=O)c2c4cccc4)c5cccc5</chem>	IC50	=	1900	nM	p53-binding protein Mdm-2	CHEMBL3220099
4o	<chem>COc1ccc(cc1)n2c(cc(C=C3C(=O)NC(=O)NC3=O)c2c4cccc4)c5cccc5</chem>	IC50	=	13000	nM	Protein Mdm4	CHEMBL3220099
2	<chem>COc1ccc(Cn2c(C)nc(Cc3ccc(N)cc3)c2Cc4ccc(Cl)cc4)cc1</chem>	IC50	=	3400	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL2024320
2	<chem>COc1ccc(Cn2c(C)nc(Cc3ccc(N)cc3)c2Cc4ccc(Cl)cc4)cc1</chem>	IC50	=	70000	nM	Protein Mdm4	CHEMBL2024320
46	<chem>COCCOC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br)cc3)C(=O)c4cccc4</chem>	Ki	=	1340	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL2180457
46	<chem>COCCOC1=C(C(N(CCCn2ccnc2)C1=O)c3ccc(Br)cc3)C(=O)c4cccc4</chem>	Ki	=	2110	nM	Tumour suppressor protein p53/Mdm4	CHEMBL2180457
10c	<chem>NC(=O)C(=Cc1cc(c2cccc2)n(c3ccc(Cl)cc3)c1c4ccc4)C(=O)N</chem>	IC50	=	2500	nM	p53-binding protein Mdm-2	CHEMBL3220111
10c	<chem>NC(=O)C(=Cc1cc(c2cccc2)n(c3ccc(Cl)cc3)c1c4ccc4)C(=O)N</chem>	IC50	=	30000	nM	Protein Mdm4	CHEMBL3220111
4q	<chem>O=C1NC(=O)C(=Cc2cc(c3cccc3)n(c4ccc(cc4)C#N)c2c5cccc5)C(=O)N1</chem>	IC50	=	4700	nM	p53-binding protein Mdm-2	CHEMBL3220101
4q	<chem>O=C1NC(=O)C(=Cc2cc(c3cccc3)n(c4ccc(cc4)C#N)c2c5cccc5)C(=O)N1</chem>	IC50	=	7000	nM	Protein Mdm4	CHEMBL3220101
4r	<chem>O=C1NC(=S)NC(=O)C1=Cc2cc(c3cccc3)n(c4ccc(cc4)C#N)c2c5cccc5</chem>	IC50	=	200	nM	p53-binding protein Mdm-2	CHEMBL3220102
4r	<chem>O=C1NC(=S)NC(=O)C1=Cc2cc(c3cccc3)n(c4ccc(cc4)C#N)c2c5cccc5</chem>	IC50	=	900	nM	Protein Mdm4	CHEMBL3220102
5	<chem>OC(=O)c1[nH]c2cc(Cl)ccc2c1c3c(ncn3Cc4ccc(Cl)cc4)c5cccc5</chem>	Ki	=	916	nM	Tumour suppressor p53/oncoprotein Mdm2	CHEMBL1233798
5	<chem>OC(=O)c1[nH]c2cc(Cl)ccc2c1c3c(ncn3Cc4ccc(Cl)cc4)c5cccc5</chem>	Ki	=	36000	nM	Tumour suppressor	CHEMBL1233798

10e	<chem>OCCNC(=O)C(=Cc1cc(c2ccccc2)n(c3ccc(Cl)cc3)c1c4ccccc4)C(=O)NCCO</chem>	IC50	=	15000	nM	protein p53/Mdm4 p53-binding protein Mdm-2	CHEMBL3220113
10e	<chem>OCCNC(=O)C(=Cc1cc(c2ccccc2)n(c3ccc(Cl)cc3)c1c4ccccc4)C(=O)NCCO</chem>	IC50	=	42000	nM	Protein Mdm4	CHEMBL3220113
1a	<chem>S1c2c(NC(C3=Cc4c(OC3=O)cccc4)C1C(=O)c1ccc(cc1)-c1ccccc1)cccc2</chem>	Ki	=	51000	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
1a	<chem>S1c2c(NC(C3=Cc4c(OC3=O)cccc4)C1C(=O)c1ccc(cc1)-c1ccccc1)cccc2</chem>	Ki	=	75000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
1b	<chem>S1c2c(NC(C3=Cc4c(OC3=O)cccc4)C1C(=O)c1ccc(OC)cc1)cccc2</chem>	Ki	=	38000	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
1b	<chem>S1c2c(NC(C3=Cc4c(OC3=O)cccc4)C1C(=O)c1ccc(OC)cc1)cccc2</chem>	Ki	=	56000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
1c	<chem>S1c2c(NC(C3=Cc4c(OC3=O)cccc4)C1C(=O)c1ccc([N+](=O)[O-])cc1)cccc2</chem>	Ki	=	36000	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
1c	<chem>S1c2c(NC(C3=Cc4c(OC3=O)cccc4)C1C(=O)c1ccc([N+](=O)[O-])cc1)cccc2</chem>	Ki	=	92000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
1d	<chem>BrC1ccc(cc1)C(=O)COC1cc2OC(=O)C(=Cc2cc1)C1Nc2c(SC1C(=O)c1ccc(S(=O)(=O)C)cc1)cccc2</chem>	Ki	=	18000	nM	Tumour suppressor p53/on	Med Res Rev. 2016 Sep;36(5):789-

							coprote in Mdm2	844. doi: 10.1002/ med.213 93.
1d	<chem>BrC1ccc(cc1)C(=O)COc1cc2OC(=O)C(=Cc2cc1)C1Ne2c(SC1C(=O)c1ccc(S(=O)(=O)C)cc1)cccc2</chem>	Ki	=	69000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
1e	<chem>BrC1ccc(cc1)C(=O)C1Sc2c(NC1C1=Cc3c(OC1=O)cccc3)cccc2</chem>	Ki	=	50000	nM	Tumou r suppre ssor p53/on coprote in Mdm2	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
1e	<chem>BrC1ccc(cc1)C(=O)C1Sc2c(NC1C1=Cc3c(OC1=O)cccc3)cccc2</chem>	Ki	=	122000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
2a	<chem>O=C1/C(/CN(C\C1=C/c1cccc1[N+](=O)[O-])Cc1cccc1)=C/c1cccc1[N+](=O)[O-]</chem>	Ki	=	80000	nM	Tumou r suppre ssor p53/on coprote in Mdm2	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
2a	<chem>O=C1/C(/CN(C\C1=C/c1cccc1[N+](=O)[O-])Cc1cccc1)=C/c1cccc1[N+](=O)[O-]</chem>	Ki	=	162000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
2b	<chem>O=C1/C(/CN(C\C1=C/c1cc([N+](=O)[O-])ccc1)Cc1cccc1)=C/c1cc([N+](=O)[O-])ccc1</chem>	Ki	=	114000	nM	Tumou r suppre ssor p53/on coprote in Mdm2	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
2b	<chem>O=C1/C(/CN(C\C1=C/c1cc([N+](=O)[O-])ccc1)Cc1cccc1)=C/c1cc([N+](=O)[O-])ccc1</chem>	Ki	=	18000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-	844. doi: 10.1002/ med.213 93.
3a	<chem>Clc1ccc(cc1)C1Oc2cc(Cl)ccc2/C(=N/NC(=O)N)/C1</chem>	Ki	=	53000	nM	Tumou r suppre	Med Res Rev. 2016	

								ssor p53/oncoprotein Mdm2	Sep;36(5):789-844. doi:10.1002/med.21393.
3a	<chem>C1c1ccc(cc1)C1Oc2cc(Cl)ccc2/C(=N/NC(=O)N)/C1</chem>	Ki	=	124000	nM	Protein Mdm4		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	
3b	<chem>O1c2c(cccc2)/C(=N/NC(=O)N)/CC1c1ccc(OC)cc1</chem>	Ki	=	162000	nM	Tumour suppressor p53/oncoprotein Mdm2		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	
3b	<chem>O1c2c(cccc2)/C(=N/NC(=O)N)/CC1c1ccc(OC)cc1</chem>	Ki	=	141000	nM	Protein Mdm4		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	
4c	<chem>C1c1cc(ccc1)C1C2=C(OC(N)=C1C#N)C(\CN(C2)CCc1ccccc1)=C\c1cc(Cl)ccc1</chem>	Ki	=	161000	nM	Tumour suppressor p53/oncoprotein Mdm2		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	
4c	<chem>C1c1cc(ccc1)C1C2=C(OC(N)=C1C#N)C(\CN(C2)CCc1ccccc1)=C\c1cc(Cl)ccc1</chem>	Ki	=	233000	nM	Protein Mdm4		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	
5a	<chem>S1c2c(N=C(CC1c1ccc(OC)cc1)C=1C(Oc3c(cccc3)C=1O)=O)ccccc2</chem>	Ki	=	56000	nM	Tumour suppressor p53/oncoprotein Mdm2		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	
5a	<chem>S1c2c(N=C(CC1c1ccc(OC)cc1)C=1C(Oc3c(cccc3)C=1O)=O)ccccc2</chem>	Ki	=	60000	nM	Protein Mdm4		Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.	

6a	<chem>Oc1ccccc1-c1nc(c(nn1)-c1ccccc1)-c1ccccc1</chem>	Ki	=	70000	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
6a	<chem>Oc1ccccc1-c1nc(c(nn1)-c1ccccc1)-c1ccccc1</chem>	Ki	=	136000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
RO-2443	<chem>C1c1ccc2c([nH]cc2\C=C\2/NC(=O)N(Cc3cc(F)c(F)cc3)C/2=O)c1C</chem>	IC50	=	33	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
RO-2443	<chem>C1c1ccc2c([nH]cc2\C=C\2/NC(=O)N(Cc3cc(F)c(F)cc3)C/2=O)c1C</chem>	IC50	=	41	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4c	<chem>C1c1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)\C=C/2\C(=O)NC(=S)NC\2=O)cc1</chem>	IC50	=	110	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4c	<chem>C1c1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)\C=C/2\C(=O)NC(=S)NC\2=O)cc1</chem>	IC50	=	420	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4o	<chem>O(C)c1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)\C=C/2\C(=O)NC(=O)NC\2=O)cc1</chem>	IC50	=	1900	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4o	<chem>O(C)c1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)\C=C/2\C(=O)NC(=O)NC\2=O)cc1</chem>	IC50	=	1300	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.

4q	<chem>O=C\INC(=O)NC(=O)/C1=C\c1cc(n(c1-c1ccccc1)-c1ccc(cc1)C#N)-c1ccccc1</chem>	IC50	=	4700	nM	Tumour suppressor p53/oncoprotein Mdm2	med.21393. Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4q	<chem>O=C\INC(=O)NC(=O)/C1=C\c1cc(n(c1-c1ccccc1)-c1ccc(cc1)C#N)-c1ccccc1</chem>	IC50	=	7000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4r	<chem>S=C1NC(=O)\C(=C\c2cc(n(c2-c2ccccc2)-c2ccc(cc2)C#N)-c2ccccc2)\C(=O)N1</chem>	IC50	=	200	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4r	<chem>S=C1NC(=O)\C(=C\c2cc(n(c2-c2ccccc2)-c2ccc(cc2)C#N)-c2ccccc2)\C(=O)N1</chem>	IC50	=	900	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4s	<chem>O=C\INC(=O)NC(=O)/C1=C\c1cc(n(c1-c1ccccc1)-c1ccc([N+](=O)[O-])cc1)-c1ccccc1</chem>	IC50	=	150	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4s	<chem>O=C\INC(=O)NC(=O)/C1=C\c1cc(n(c1-c1ccccc1)-c1ccc([N+](=O)[O-])cc1)-c1ccccc1</chem>	IC50	=	680	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4t	<chem>S=C1NC(=O)\C(=C\c2cc(n(c2-c2ccccc2)-c2ccc([N+](=O)[O-])cc2)-c2ccccc2)\C(=O)N1</chem>	IC50	=	170	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4t	<chem>S=C1NC(=O)\C(=C\c2cc(n(c2-c2ccccc2)-c2ccc([N+](=O)[O-])cc2)-c2ccccc2)\C(=O)N1</chem>	IC50	=	630	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-

4x	<chem>Clc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C\2/C(=O)N(C)C(=S)NC/2=O)cc1</chem>	IC50	=	110	nM	Tumour suppressor p53/oncoprotein Mdm2	844. doi: 10.1002/med.21393. Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4x	<chem>Clc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C\2/C(=O)N(C)C(=S)NC/2=O)cc1</chem>	IC50	=	28000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4y	<chem>Brc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C\2/C(=O)N(C)C(=O)NC/2=O)cc1</chem>	IC50	=	340	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
4y	<chem>Brc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C\2/C(=O)N(C)C(=O)NC/2=O)cc1</chem>	IC50	=	35000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
10c	<chem>Clc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C(\C(=O)N)/C(=O)N)cc1</chem>	IC50	=	2500	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
10c	<chem>Clc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C(\C(=O)N)/C(=O)N)cc1</chem>	IC50	=	30000	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
10d	<chem>Clc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C(\C(=O)NC)/C(=O)NC)cc1</chem>	IC50	=	7600	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
10d	<chem>Clc1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C(\C(=O)NC)/C(=O)NC)cc1</chem>	IC50	=	30000	nM	Protein Mdm4	Med Res Rev. 2016

									Sep;36(5):789-844. doi:10.1002/med.21393.
10e	<chem>C1c1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C(\C(=O)NCCO)/C(=O)NCCO)cc1</chem>	IC50	=	15000	nM	Tumour suppressor p53/oncoprotein Mdm2			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.
10e	<chem>C1c1ccc(-n2c(-c3ccccc3)c(cc2-c2ccccc2)C=C(\C(=O)NCCO)/C(=O)NCCO)cc1</chem>	IC50	=	42000	nM	Protein Mdm4			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.
lithocholic acid	<chem>O[C@H]1CC2CCC3C4CC[C@H]([C@@H](CCC(O)=O)C)[C@]4(CCC3[C@]2(CC1)C)C</chem>	Kd	=	66000	nM	Tumour suppressor p53/oncoprotein Mdm2			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.
lithocholic acid	<chem>O[C@H]1CC2CCC3C4CC[C@H]([C@@H](CCC(O)=O)C)[C@]4(CCC3[C@]2(CC1)C)C</chem>	Kd	=	15400	nM	Protein Mdm4			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.
63	<chem>C1c1cc(Cl)ccc1CCn1c2nc(nc(N(C)C)c2cc1C(=O)N(CC(C)C)CC(=O)N)NCCc1c2c([nH]c1)cccc2</chem>	Ki	=	620	nM	Tumour suppressor p53/oncoprotein Mdm2			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.
63	<chem>C1c1cc(Cl)ccc1CCn1c2nc(nc(N(C)C)c2cc1C(=O)N(CC(C)C)CC(=O)N)NCCc1c2c([nH]c1)cccc2</chem>	Ki	=	620	nM	Protein Mdm4			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.
64	<chem>O=C(N(CC(=O)N)C1CCC1)c1n(c2nc(nc(N(C)C)c2c1)NCc1cc2c(cc1)cccc2)CC(C)C</chem>	Ki	=	450	nM	Tumour suppressor p53/oncoprotein Mdm2			Med Res Rev. 2016 Sep;36(5):789-844. doi:10.1002/med.21393.

64	<chem>O=C(N(CC(=O)N)C1CCCC1)c1n(c2nc(nc(N(C)C)c2c1)NCc1cc2c(cc1)cccc2)CC(C)C</chem>	Ki	=	840	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
OXAZ-1	<chem>S(On1cc(c2c1cccc2)CC1N2C(OC1)C[C@H](CC2=O)CC(OC)=O)(=O)(=O)c1ccc(cc1)C</chem>	EC50	=	1000	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
OXAZ-1	<chem>S(On1cc(c2c1cccc2)CC1N2C(OC1)C[C@H](CC2=O)CC(OC)=O)(=O)(=O)c1ccc(cc1)C</chem>	EC50	=	2400	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
imidazole-indole derivative	<chem>C1c1ccc(cc1)Cn1cnc(c1-c1c2c([nH]c1C(O)=O)cc(Cl)cc2)-c1cccc1</chem>	IC50	=	1170	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
imidazole-indole derivative	<chem>C1c1ccc(cc1)Cn1cnc(c1-c1c2c([nH]c1C(O)=O)cc(Cl)cc2)-c1cccc1</chem>	IC50	=	44500	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
WW298	<chem>C1c1ccc(cc1)Cn1cnc(c1-c1c2c([nH]c1C(=O)N1C[C@@H](N(CCCN(C)C)C)CC1)cc(Cl)cc2)-c1cccc1</chem>	IC50	=	190	nM	Tumour suppressor p53/oncoprotein Mdm2	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
WW298	<chem>C1c1ccc(cc1)Cn1cnc(c1-c1c2c([nH]c1C(=O)N1C[C@@H](N(CCCN(C)C)C)CC1)cc(Cl)cc2)-c1cccc1</chem>	IC50	=	19700	nM	Protein Mdm4	Med Res Rev. 2016 Sep;36(5):789-844. doi: 10.1002/med.21393.
nutlin-3a	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	IC50	=	90	nM	Tumour suppressor p53/oncoprotein	CHEMBL191334

								Mdm2
nutlin-3a	<chem>COc1ccc(C2=N[C@H]([C@H](N2C(=O)N3CCNC(=O)C3)c4ccc(Cl)cc4)c5ccc(Cl)cc5)c(OC(C)C)c1</chem>	Ki	=	9380	nM	Protein	CHEMB	
WK23	<chem>Clc1ccc(cc1)Cn1cnc(c1-c1c2c([nH]c1C(O)=O)cc(Cl)cc2)-c1ccccc1</chem>	Ki	=	916	nM	Tumour	Med Res	
						suppressor	Rev.	2016
						p53/oncoprotein	doi:	10.1002/med.21393.
						Mdm2		
WK23	<chem>Clc1ccc(cc1)Cn1cnc(c1-c1c2c([nH]c1C(O)=O)cc(Cl)cc2)-c1ccccc1</chem>	Ki	=	36000	nM	Protein	Med Res	
						Mdm4	Rev.	2016
							doi:	10.1002/med.21393.
RO-2443	<chem>Clc1ccc2c([nH]cc2\C=C\2/NC(=O)N(Cc3cc(F)c(F)cc3)C/2=O)c1C</chem>	IC50	=	33	nM	Tumour	Med Res	
						suppressor	Rev.	2016
						p53/oncoprotein	doi:	10.1002/med.21393.
						Mdm2		
RO-2443	<chem>Clc1ccc2c([nH]cc2\C=C\2/NC(=O)N(Cc3cc(F)c(F)cc3)C/2=O)c1C</chem>	IC50	=	41	nM	Protein	Med Res	
						Mdm4	Rev.	2016
							doi:	10.1002/med.21393.
RO-5963	<chem>Clc1ccc2c([nH]cc2\C=C\2/NC(=O)N(Cc3cc(C(=O)NC(CO)CO)c(F)c(F)c3)C/2=O)c1C</chem>	IC50	=	17.3	nM	Tumour	Med Res	
						suppressor	Rev.	2016
						p53/oncoprotein	doi:	10.1002/med.21393.
						Mdm2		
RO-5963	<chem>Clc1ccc2c([nH]cc2\C=C\2/NC(=O)N(Cc3cc(C(=O)NC(CO)CO)c(F)c(F)c3)C/2=O)c1C</chem>	IC50	=	24.7	nM	Protein	Med Res	
						Mdm4	Rev.	2016
							doi:	10.1002/med.21393.