Suppl. Table 1. Cytostatic activity of 3F-3DUrd, 3DUrd and other antimetabolic drugs in tumor cell cultures

Compound	IC_{50}[a] (μM)							
	L1210	FM3A	CEM	MCF-7	PC-3	OST TK^-	HeLa	HEL
3F-3DUrd	16 ± 1.4	89 ± 52	19 ± 8.6	123 ± 45	120 ± 7.1	53 ± 28	32 ± 5.0	47 ± 18
3DUrd	2.0 ±0.6	18 ± 4.2	7.4 ± 3.1	4.7 ± 0.7	20 ± 2.1	5.5 ± 0.2	4.8 ± 2.2	15 ± 4.9
Pyrazofurin	0.07 ± 0.003	0.15 ± 0.05	0.24 ± 0.09	0.12 ± 0.05	0.054 ± 0.004	0.061 ± 0.005	≤ 0.060 ± 0.006	0.04 ± 0.03
6AUrd	0.17 ± 0.007	0.43 ± 0.16	0.63 ± 0.28	0.09 ± 0.06	5.7 ± 1.2	0.017 ± 0.005	0.10 ± 0.05	6.3 ± 2.4
K-Oxonate	152 ± 8.5	>200	≥204 ± 43	>200	> 200	98 ± 82	>200	> 200
A771726	6.3 ± 2.4	12 ± 1.2	28 ± 13	22 ± 5.4	65 ± 11	23 ± 1.4	42 ± 20	63 ± 0.71

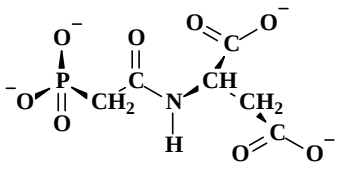
[a]50% Inhibitory concentration or compound concentration required to inhibit tumor cell proliferation by 50%.

Legends to the Supplementary Figures

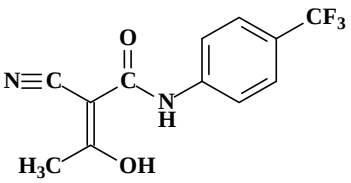
Suppl. Fig. 1. Structural formulae of known antimetabolite drugs of the pyrimidine nucleotide metabolism.

Suppl. Fig. 2. HPLC chromatograms of 3DUrd- and 3F-3DUrd-treated and untreated CEM cell cultures. Exponentially growing CEM cell cultures were exposed to 10-µM 3DUrd, 3F-3DUrd or no drug for 24 hrs.

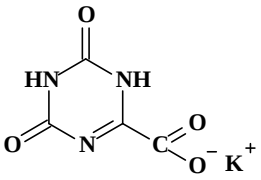
Suppl. Fig. 3. Proposed mechanism of increased cytostatic activity by the addition of hypoxanthine/adenine to 3F-3DUrd-exposed CEM tumor cell cultures.



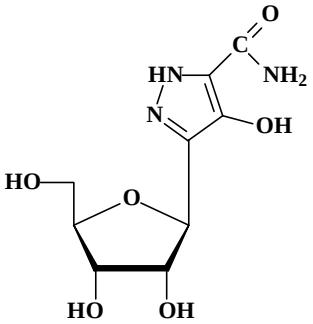
PALA



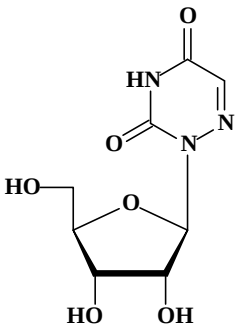
A771726



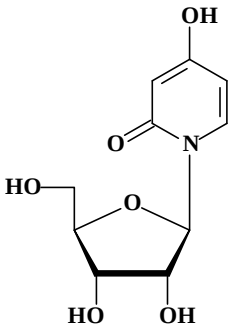
K-oxonate



Pyrazofurin (Pyr)



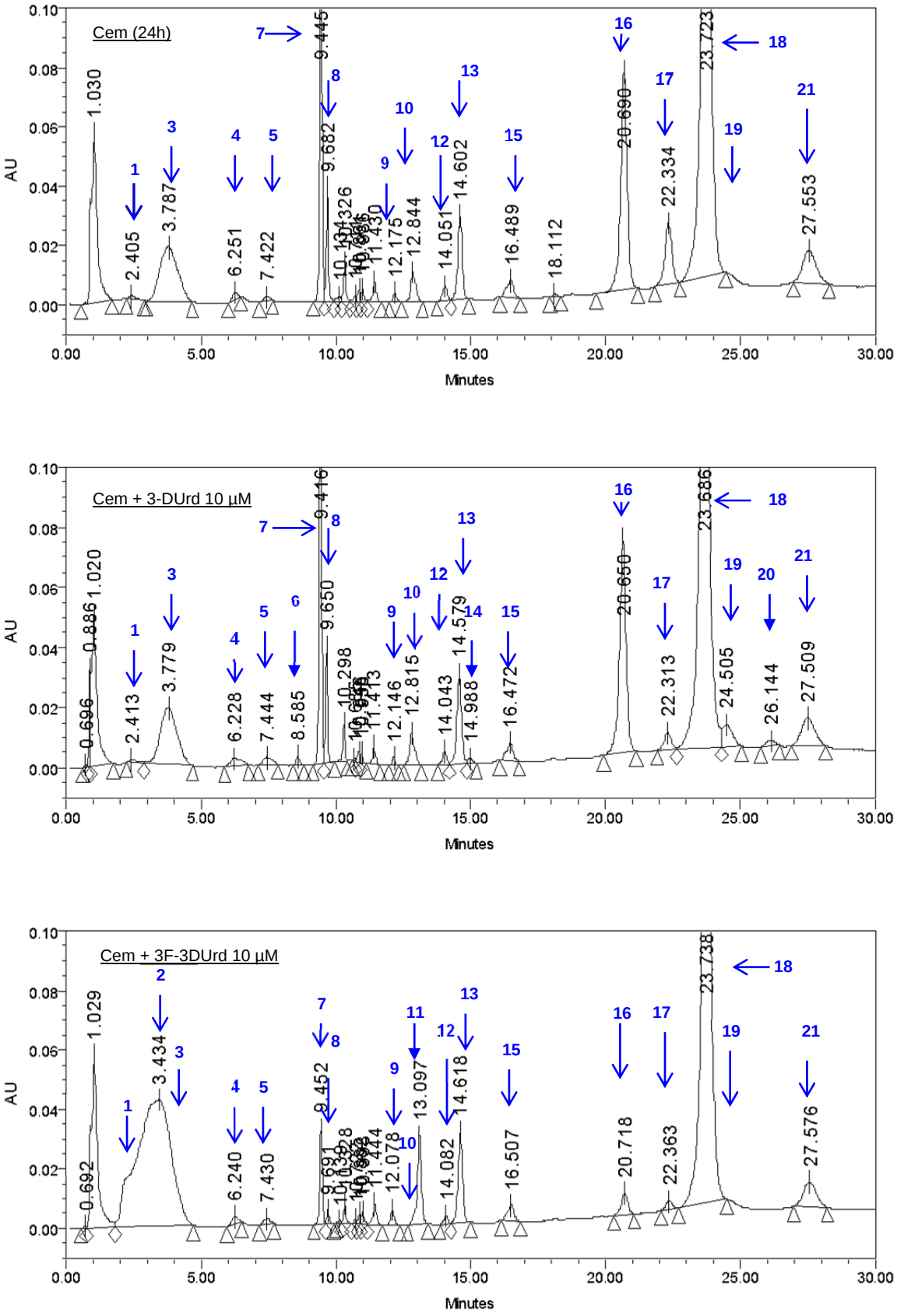
6-azaUridine (6AUrd)



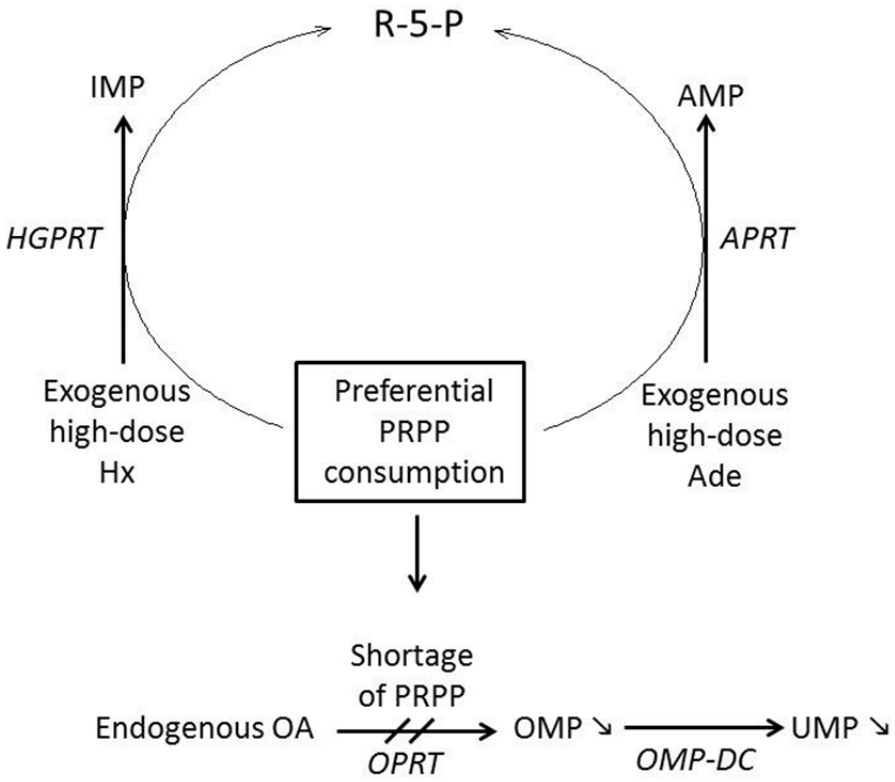
3-deazaUridine (3DUrd)

Suppl. Fig. 1.

1. -
2. OA/Orot/Urd
3. NAD
4. UMP
5. AMP
6. 3DUMP
7. GMP
8. UDP-G
9. OMP
10. UDP
11. 3F-3DUMP
12. CDP
13. ADP
14. 3DUDP?
15. GDP
16. UTP
17. CTP
18. ATP
19. dATP
20. 3DUTP
21. GTP



Suppl. Fig. 2


R-5-P
IMP
AMP
HGPRT
APRT
Exogenous high-dose Hx
Preferential PRPP consumption
Exogenous high-dose Ade
Shortage of PRPP
Endogenous OA
OMP ↘
UMP ↘
OPRT
OMP-DC

Suppl. Fig. 3