

SUPPORTING INFORMATION

***N*-(Pivaloyloxy)alkoxy-carbonyl Prodrugs of the Glutamine Antagonist 6-Diazo-5-oxo-L-norleucine (DON) as a Potential Treatment for HIV Associated Neurocognitive Disorders**

Michael T. Nedelcovych^{1,2#}, *Lukáš Tenora*^{9#}, *Boe-Hyun Kim*¹⁰, *Jennifer Kelschenbach*¹⁰, *Wei Chao*¹⁰, *Eran Hadas*¹⁰, *Andrej Jančařík*⁹, *Eva Prchalová*^{1,9}, *Sarah C. Zimmermann*^{1,2}, *Ranjeet P. Dash*¹, *Alexandra J. Gadiano*¹, *Caroline Garrett*⁷, *Georg Furtmüller*⁸, *Byoungchol Oh*⁸, *Gerald Brandacher*⁸, *Jesse Alt*¹, *Pavel Majer*^{9*}, *David J. Volsky*^{10*}, *Rana Rais*^{1,2*}, *Barbara S. Slusher*^{1,2,3,4,5,6*}

¹Johns Hopkins Drug Discovery, Departments of ²Neurology, ³Medicine, ⁴Oncology, ⁵Psychiatry, ⁶Neuroscience, ⁷Molecular and Comparative Pathobiology, and ⁸Vascularized Composite Allotransplantation Laboratory, Department of Plastic and Reconstructive Surgery
Johns Hopkins School of Medicine, Baltimore, MD 21205, U.S.A.

⁹Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic
v.v.i., Prague, Czech Republic

¹⁰Department of Medicine, Icahn School of Medicine at Mount Sinai, New York, NY, 10029,
U.S.A.

These authors contributed equally

Table of Contents

Figure S1. Representative chromatogram showing metabolism of **13d** in mouse plasma.....S2

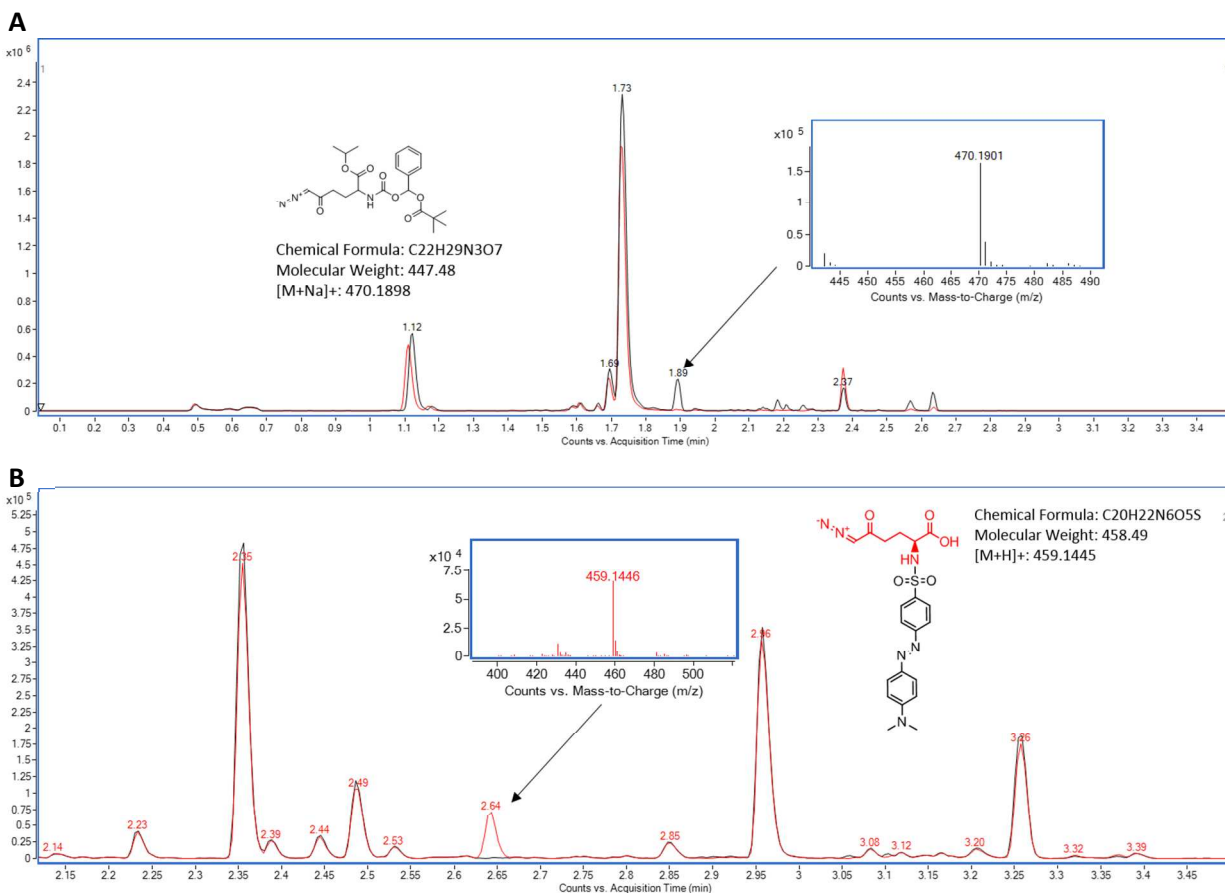


Figure S1. Representative chromatogram depicting rapid disappearance of DON prodrug and liberation of DON (14) in mouse plasma. Compound **13d** (10 μ M) was incubated in mouse plasma and monitored over time by LC-MS which detected (A) a peak corresponding to intact **13d** at time t=0 min (black line, retention time =1.89 min, m/z=470.1901), that disappeared by time t=10 min (red line), indicating rapid metabolism of the prodrug in mouse plasma. In a complimentary experiment (B), a peak corresponding to derivatized DON (**14**) was absent at t=0 min (black line), but appeared at time t=10 min (red line, retention time =2.64 min, m/z 459.1446).