

## SUPPORTING INFORMATION

### **CRYSTAL STRUCTURE-BASED SELECTIVE TARGETING OF THE PYRIDOXAL-5'-PHOSPHATE DEPENDENT ENZYME KYNURENINE AMINOTRANSFERASE II FOR COGNITIVE ENHANCEMENT**

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#### **SUPPORTING EXPERIMENTAL SECTION**

#### **SUPPORTING FIGURE 1**

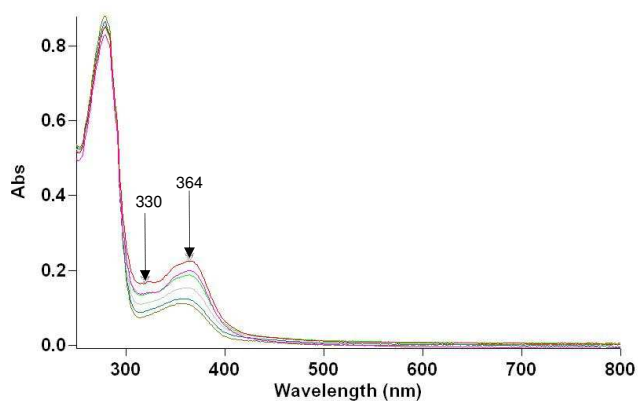
#### **SUPPORTING FIGURE 2**

## SUPPORTING EXPERIMENTAL SECTION

### Biochemical investigation in solution

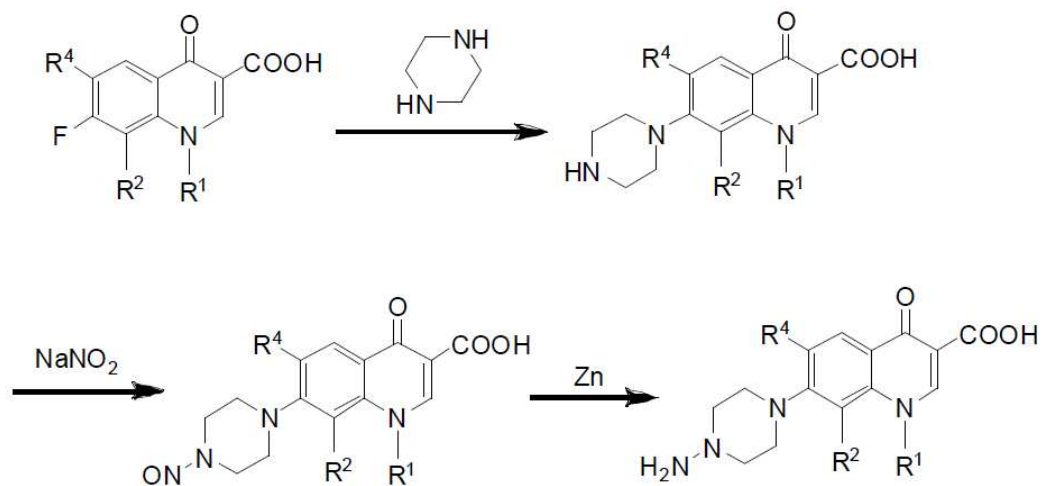
Irreversible inactivation of hKAT II by BFF-122 was assessed following a standard approach (Mann, S.; Marquet, A.; Ploux, O. Inhibition of 7,8-diaminopelargonic acid aminotransferase by amiclenomycin and analogues. *Biochem. Soc. Trans.* **2005**, *33*, part4). 200  $\mu$ L of a solution containing 200 mM potassium phosphate pH 7.5, 20  $\mu$ M BFF-122 and 20  $\mu$ M hKAT II was incubated for 1 h at 37 °C and then dialyzed for 2 h against a solution containing 200 mM potassium phosphate pH 7.0. Subsequently, the enzyme was assayed using the protocol described in the “Experimental Section” at page 10 and no activity could be detected.

## Supporting Figure 1



**Spectral analyses of hKAT II:BFF-122 complex.** Spectral analyses were carried out using a solution of hKAT II at concentration of 20  $\mu\text{M}$  in 200 mM potassium phosphate pH 7.5. Increasing amounts of BFF-122 (final concentration of 1, 5, 10, 15, 20  $\mu\text{M}$ ) were added to the protein solution in a total volume of 200  $\mu\text{L}$ , and incubated for 10 minutes at 37  $^{\circ}\text{C}$  before spectrum recording. The lower trace refers to hKAT II in absence of BFF-122. No peak around 330 nm could be detected. A BFF-122 concentration dependent peak is observed at 364 nm.

## Supporting Figure 2



**Schematic representation of the preparation of quinolone compounds with a primary amine.** Quinolones can be readily prepared starting from a fluoroquinolone core and a nucleophilic amine as referenced<sup>17,27</sup> in the paper.