Supplemental Data for *Molecular Pharmacology* article:

New Positive K_{Ca} Channel Gating Modulators with Selectivity for $K_{Ca}3.1$

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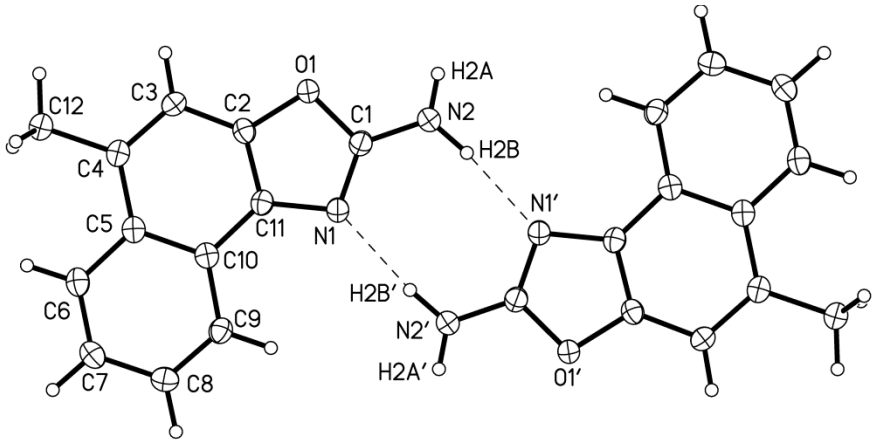
This file contains:

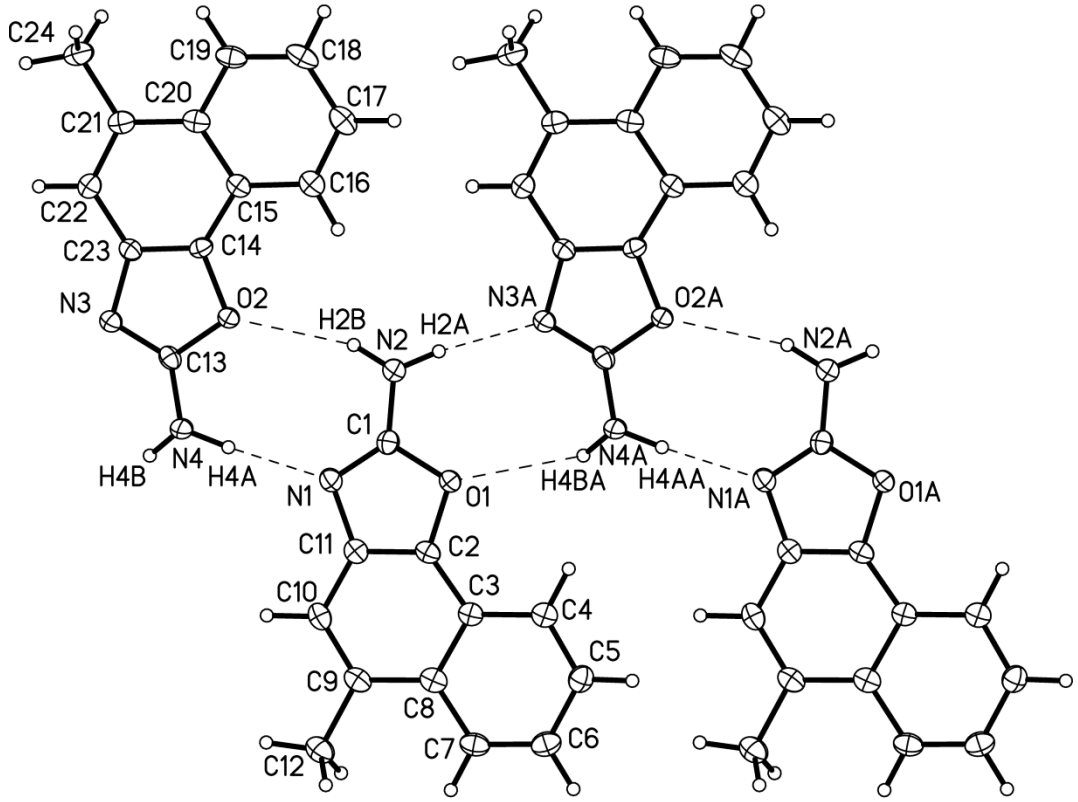
1 Supplemental Figure showing the hydrogen bonding pattern of SKA-120 and SKA-121

1 Supplemental Figure showing QPatch recordings of $Na_V1.2$ and $Na_V1.5$ currents

1 Supplemental Figure showing telemetric blood pressure measurements after i.p. injection of 30 mg/kg SKA-111, SKA-121



Hydrogen bonding scheme for SKA-120



Hydrogen bonding scheme for SKA-121

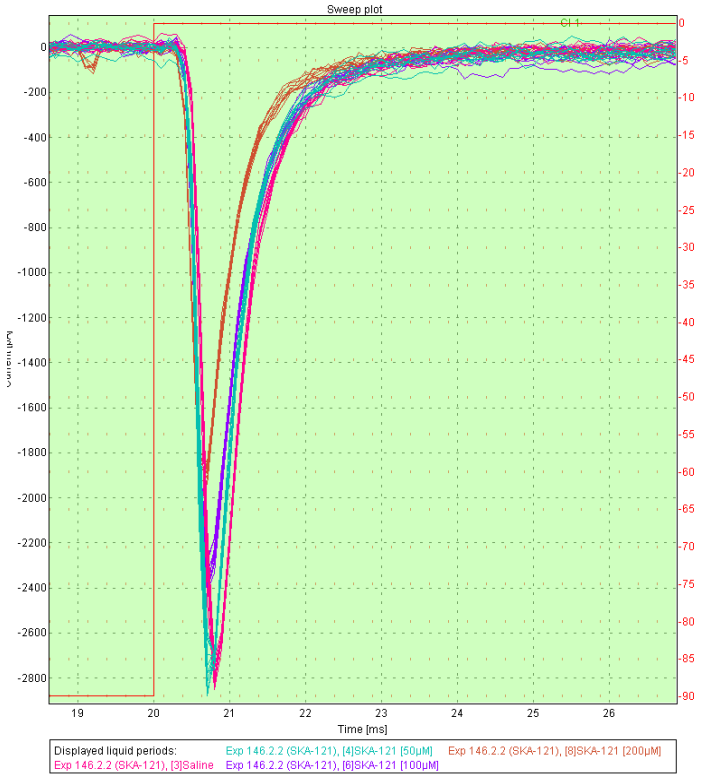
Supplemental Figure 1:

Differences in the hydrogen bonding pattern in the crystal structures of SKA-120 and SKA-121.

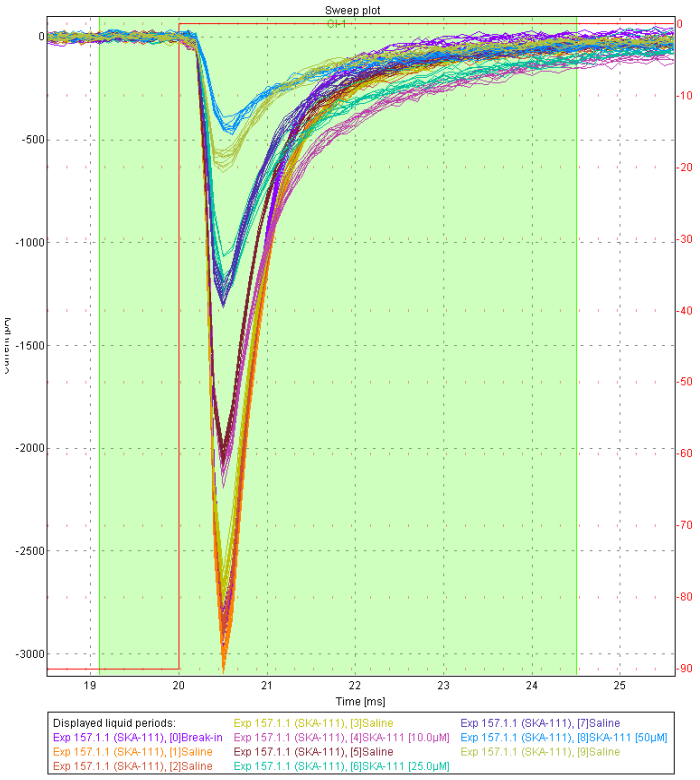
Supplemental Figure 2:

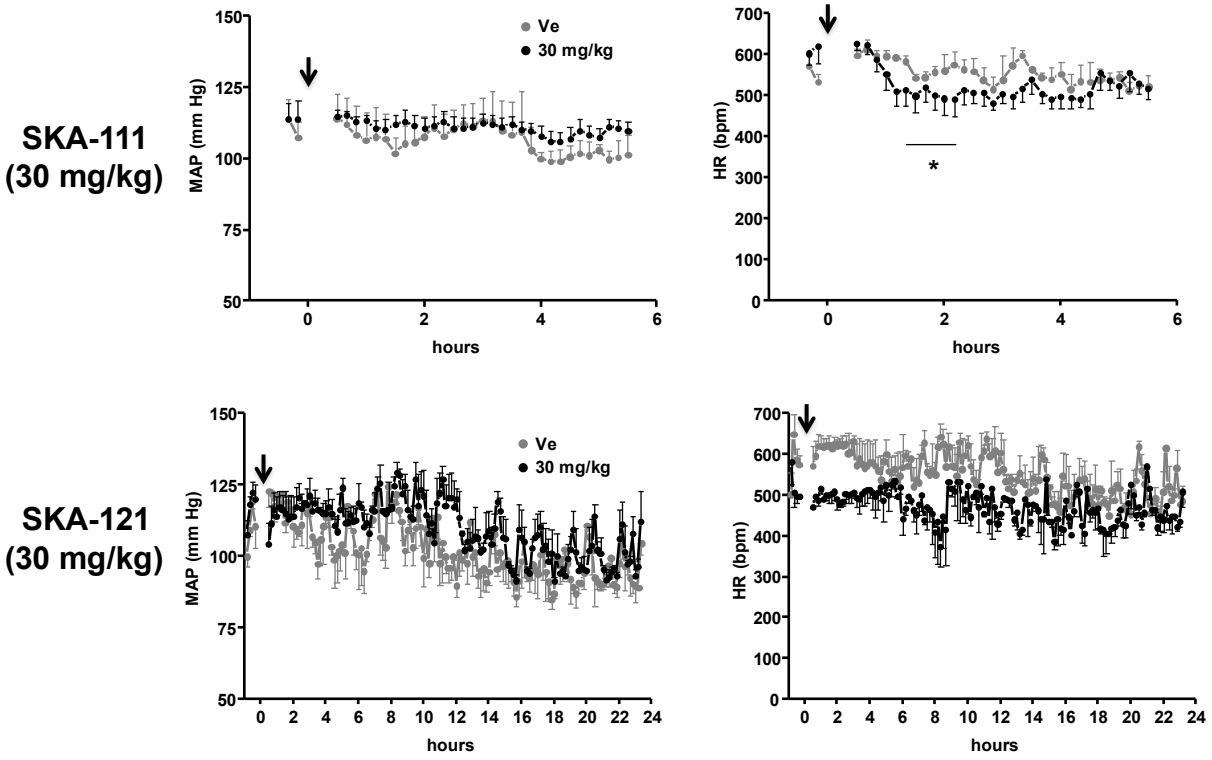
Representative sweep plots of QPatch $Na_V1.2$ recordings from N1E-115 neuroblastoma and $Na_V1.5$ recordings from HEK-293 cells. Currents were elicited by 20 ms pulses from –90 mV to 0 mV applied every 10 sec with a KF-based internal solution and normal Ringer as an external solution.

$Na_V1.2$ (N1E-115 cells)



$Na_V1.5$ (HEK-293 cells)





Supplemental Figure 3:

Telemetric blood pressure measurements after i.p. injection of 30 mg/kg SKA-111, SKA-121, or vehicle (Ve). Note that only SKA-111 moderately reduced heart rate (HR) at 2 h after injection while SKA-111 or SKA-121 did not change mean arterial pressure (MAP). Data points are means ± SEM; n = 3-4 per group. Line in right panel on top indicates time period when HR was significantly different from Ve. *<0.05, unpaired Student T-test.