**SUPPLEMENTARY INFORMATION**

**Supplementary Table S1.** Mean (SD) Change from Baseline at Day 2 (Treatment Period 1) or Day 44 (Treatment Period 2) in Selected Laboratory Parameters Following a Perampanel 12-mg Dose Administered as a 30-, 60-, or 90-minute IV Infusion, or an Oral Tablet (Safety Analysis Set)

| Parameter                          | Oral tablet (n=47) | IV infusion 30 min (n=19) | 60 min (n=19) | 90 min (n=7) |
|-----------------------------------|--------------------|----------------------------|---------------|--------------|
| Mean (SD) change from baseline    |                    | 30 min                     | 60 min        | 90 min       |
| Alanine aminotransferase, U/L     | −2.0 (5.7)         | −3.2 (6.4)                 | −0.5 (3.1)    | −2.6 (2.2)   |
| Alkaline phosphatase, U/L         | −3.9 (7.6)         | −4.5 (3.0)                 | −2.1 (4.5)    | −2.9 (7.9)   |
| Creatinine, mg/100mL              | 0.03 (0.1)         | 0.01 (0.1)                 | 0.03 (0.1)    | −0.06 (0.1)  |

IV, intravenous; min, minute; SD, standard deviation.
Supplementary Figure S1. Subject disposition

Although 67 subjects were screened for entry into the study, only 65 subjects were considered enrolled because 2 participants initially screen failed and were later rescreened, deemed qualified, and randomized.
Supplementary Figure S2. Comparison of simulated perampanel $C_{ss,\text{max}}$ (GMR and 90% CIs) in 20 replicates for the first IV infusion vs oral tablet at steady state (Day 29/Day 28), seventh IV infusion vs oral tablet at steady state (Day 35/Day 28), and first day of oral tablet restart vs oral tablet at steady state (Day 36/Day 28) for (A) 30-minute, (B) 60-minute, and (C) 90-minute IV infusions
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CI, confidence interval; $C_{ss,max}$, maximum observed drug concentration at steady state; GMR, geometric mean ratio; IV intravenous.
**Supplementary Figure S3.** Simulated perampanel concentration–time profiles following perampanel single 2-mg oral tablet vs: (A) 2-mg 30-minute IV infusion, (B) 2-mg 60-minute IV infusion, and (C) 2-mg 90-minute IV infusion

IV, intravenous; min, minute.
Supplementary Figure S4. Mean (±SD) change from baseline in (A) systolic blood pressure, (B) diastolic blood pressure, and (C) pulse following a perampanel 12-mg dose administered as a 30-minute, 60-minute, or 90-minute IV infusion, or an oral tablet
Baseline is defined for Period 1 as the last non-missing value (either scheduled, unscheduled, or repeat) before the subject receives the dose of perampanel on Day 1. Baseline for Period 2 is defined as the last non-missing value (either scheduled, unscheduled, or repeat) that occurs on or after the scheduled Period 2 baseline assessment on Day 42 and before the subject receives the dose of perampanel on Day 43.

IV, intravenous; min, minute; SD, standard deviation.