**Supplement**

Table S1 Pharmacokinetic properties of dexmedetomidine of healthy subjects in i.v. group or NS group.

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| --- | --- | --- | --- | --- | --- |
| Group | Tmax (h) | t1/2 (h) | λ (1/h) | V/F(×105mL) | CL/F (×105mL·h-1) |
| IV(Part 1) | 0.25(0.28-0.22) | 2.07±0.33 | 0.34±0.05 | 1.05±0.21 | 0.35±0.06 |
| NS(part 2 and part 3) | 0.5(4.01-0.25) | 3.80±0.94 | 0.19±0.05 | 2.54±1.31 | 0.45±0.15 |

Notes: Values are presented as mean ± SD, except Tmax, which is the median (min-max);

Abbreviations: PK, pharmacokinetic; NS, nasal spray; IV, intravenous; Tmax, time to Cmax; t1/2, terminal elimination half-life; λ, first-order elimination rate constant; V/F, apparent volume of distribution corrected by bioavailability; CL/F, clearance corrected by bioavailability; SD, standard deviatio