**Table S2. Summary of covariate model building steps from base to final population- pharmacokinetic model of SIM0295.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model Number | OFV | ΔOFV | Inspection Criteria | P < 0.05 | Model Description |
| SIMA6 | - 4179.252 |  | - 3.84 | NO | Add HILL coefficient to base model |
| **Step 1: Forward Inclusion: Include FOOD on HILL** | | | | | |
| SIMB2 | - 4219.435 | - 40.183 | - 3.84 | YES | Inclusion of SUBT on Vu |
| SIMB3 | - 4193.984 | - 14.732 | - 3.84 | YES | Include COMB on Vu |
| SIMB4 | - 4188.436 | - 9.184 | - 3.84 | YES | Include RACE on Vu |
| SIMB5 | - 4190.5 | - 11.248 | - 3.84 | YES | Include FOOD on Vu |
| SIMB6 | - 4183.331 | - 4.079 | - 3.84 | YES | Inclusion of FOOD on Emax |
| SIMB7 | - 4228.727 | - 49.475 | - 3.84 | YES | Inclusion of FOOD on HILL |
| **Step 2: Forward Inclusion: Include SUBT on Vu** | | | | | |
| SIMB8 | - 4266.89 | - 38.163 | - 3.84 | YES | Inclusion of SUBT on Vu |
| SIMC1 | - 4234.304 | - 5.577 | - 3.84 | YES | Inclusion of FOOD on Emax |
| SIMC2 | - 4244.849 |  | - 3.84 |  | Include FOOD on Vu |
| SIMC3 | - 4242.898 | - 14.171 | - 3.84 | YES | Include COMB on Vu |
| SIMC4 | - 4235.398 | - 6.671 | - 3.84 | YES | Include RACE on Vu |
| **Step 3: Forward Inclusion: Include FOOD on Vu** | | | | | |
| SIMD1 | - 4266.963 | - 0.073 | - 3.84 | NO | Include RACE on Vu |
| SIMD2 | - 4266.89 | 0 | - 3.84 | NO | Include COMB on Vu |
| SIMD3 | - 4279.804 | - 12.914 | - 3.84 | YES | Include FOOD on Vu |
| SIMD4 | - 4275.135 | - 8.245 | - 3.84 | YES | Inclusion of FOOD on Emax |
| **Step 4: Forward Inclusion: Include FOOD on Emax** | | | | | |
| SIME1 | - 4290.094 |  | - 3.84 |  | Inclusion of FOOD on Emax |
| Step 5: Backward elimination |  |  |  |  |  |
| SIMD3 | - 4279.804 | 10.29 | - 6.68 | NO | Remove FOOD on Emax |
| SIMD4 | - 4275.135 | 14.959 | - 6.68 | NO | Remove FOOD on Vu |
| SIMF1 | - 4231.182 | 58.912 | - 6.68 | NO | Eliminate FOOD on HILL |
| SIMF2 | - 4251.946 | 38.148 | - 6.68 | NO | Remove SUBT on Vu |
| **Step 6: Termination** | | | | | |

COMB: SIM0295 co-administration with colchicine; OFV: Objective function value; SUBT: Subject status;