**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;