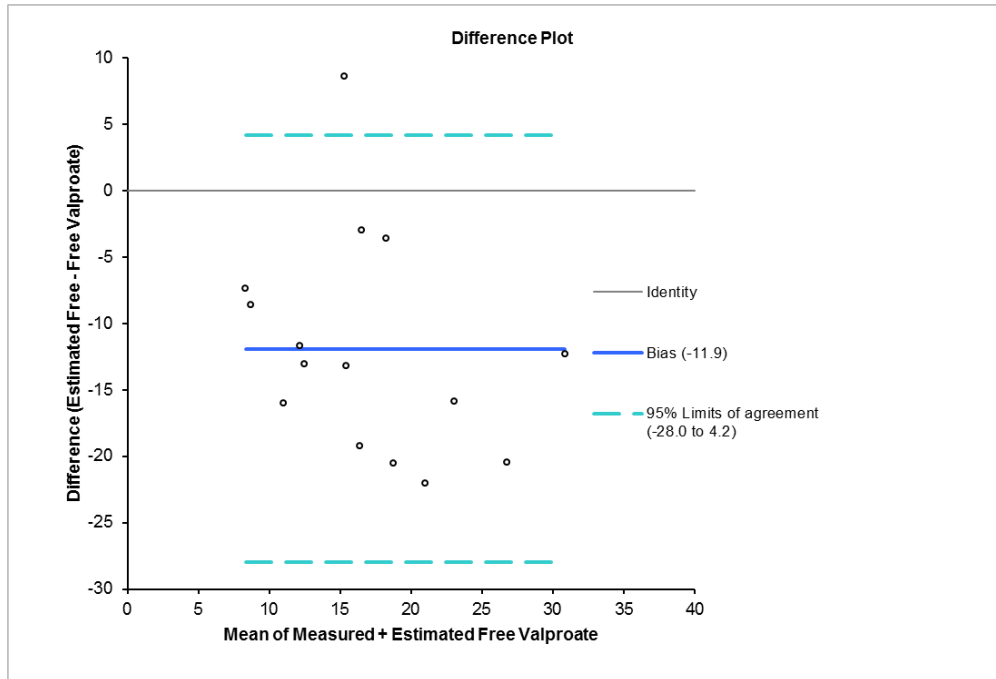


eFig 1 Altman–Bland Plot showing Parent formula under-estimates free serum valproate concentration, with bias of -11.9 mg/L and 95% Limits of Agreement of -28 to 4.2 mg/L



eTable 1 Literature reported reference range for Free Valproate concentrations

Author, Year	Low Free Reference	High Free Reference
Beran, 1985 ⁴⁰	5 mg/L (35 µmol/L)	10 mg/L (70 µmol/L)
Lagneau, 2004 ⁵	5 mg/L	10 mg/L
Mayerhoff, 2005 ⁴¹	5 mg/L	10 mg/L
Xiong, 2008 ⁴²	6 mg/L	20 mg/L
Chan, 2008 ²⁶	4.3 mg/L (30 µmol/L)	10.8 mg/L (75 µmol/L)
de Maat, 2011 ⁶	5 mg/L	15 mg/L
Jansen 2012 ⁷	5 mg/L	15 mg/L
Gibbs, 2015 ³³	4.8 mg/L	17.7 mg/L
median	5 mg/L	12.9 mg/L
IQR	4.95-5 mg/L	10-15.7 mg/L