Table 2. Binding parameters of GIP and GLP-1 variants

Peptide	K_d (μM)	Stoichiometry	ΔH (kJ mol^{-1})	-ΔΔH* (kJ mol^{-1})	-TΔS** (kJ mol^{-1})	-TΔΔS[a,b] (kJ mol^{-1})
GIP_{1-42}	1.1 ± 0.1	1.0 ± 0.1	-92.7 ± 0.4	-	59.2 ± 1.2	-
GIP_{1-42} D15A	1.4 ± 0.1	1.1 ± 0.1	-83.8 ± 0.4	8.9	50.9 ± 1.7	8.3
GIP_{1-42} Q19A	1.5 ± 0.2	1.0 ± 0.1	-85.4 ± 1.3	7.3	52.6 ± 5.8	6.6
GIP_{1-42} Q20A	2.2 ± 0.1	1.0 ± 0.1	-79.0 ± 0.3	13.7	47.2 ± 1.9	12.0
GIP_{1-42} F22A	210.5 ± 21.6	1.3 ± 0.1	-73.6 ±11.3	19.1	53.0 ± 13.4	6.2
GIP_{1-42} V23A	139.1 ± 10.0	0.6 ± 0.1	-58.6 ±10.4	34.1	36.9 ± 11.9	22.3
GIP_{1-42} L26A	5.5 ± 0.2	1.1 ± 0.1	-97.6 ± 1.2	-4.9	68.1 ± 2.3	-8.9
GIP_{1-42} L27A	104.7 ± 3.6	1.1 ± 0.1	-58.7 ± 2.3	34.0	36.3 ± 3.1	22.9
GIP_{1-42} K30A	0.7 ± 0.1	1.1 ± 0.1	-86.4 ± 0.2	6.3	51.9 ± 5.1	7.3
GIP_{13-42}	6.8 ± 0.2	1.1 ± 0.1	-77.3 ± 0.6	15.4	48.2 ± 1.7	11.0
GIP_{15-42}	11.9 ± 0.5	1.1 ± 0.1	-78.7 ± 1.1	14.0	51.0 ± 2.4	8.2
GIP_{17-42}	15.2 ± 0.5	1.1 ± 0.1	-67.6 ± 0.7	25.1	40.5 ± 1.5	18.7
GIP_{19-42}	34.5 ± 0.9	1.1 ± 0.1	-58.7 ± 0.8	34.0	33.6 ± 1.4	25.6
GIP_{21-42}	105.6 ± 4.8	0.9 ± 0.1	-52.3 ± 3.7	40.4	29.9 ± 4.7	29.3
GIP_{23-42}	n.d.	n.d.	n.d.	-	n.d.	-
GIP_{1-42} + 9% MCD***	5.4 ± 0.1	1.1 ± 0.1	-109.4 ± 0.2	-16.7	79.7 ± 0.5	-20.5
$GLP\text{-}1_{7-36}$	13.5 ± 0.8	1.2 ± 0.1	-39.5 ± 0.8	53.2	12.1 ± 2.3	47.1
$GLP\text{-}1_{7-36}$ E15D	18.2 ± 0.8	1.4 ± 0.1	-45.7 ± 0.5	47.0	19.0 ± 1.6	40.2
$GLP\text{-}1_{7-36}$ A19Q	24.1 ± 1.1	1.2 ± 0.1	-39.0 ± 0.7	53.7	13.1 ± 1.9	46.1
$GLP\text{-}1_{7-36}$ E15D/A19Q	19.9 ± 0.8	1.3 ± 0.1	-48.9 ± 0.7	43.8	22.4 ± 1.8	36.8
$GLP\text{-}1_{7-36}$ K20Q	12.0 ± 0.7	1.3 ± 0.1	-38.9 ± 0.9	53.8	11.3 ± 2.5	47.9

Errors correspond to standard deviation of non-linear least-squares fit of the data points in the titration curve. n.d., not determined.

* Relative to binding of GIP_{1-42}.

** T = 293 K.

*** 9% Methyl-β-Cyclodextrin being present in titrand (GIP_{1-42}) and analyte (GIPR ECD) solution.