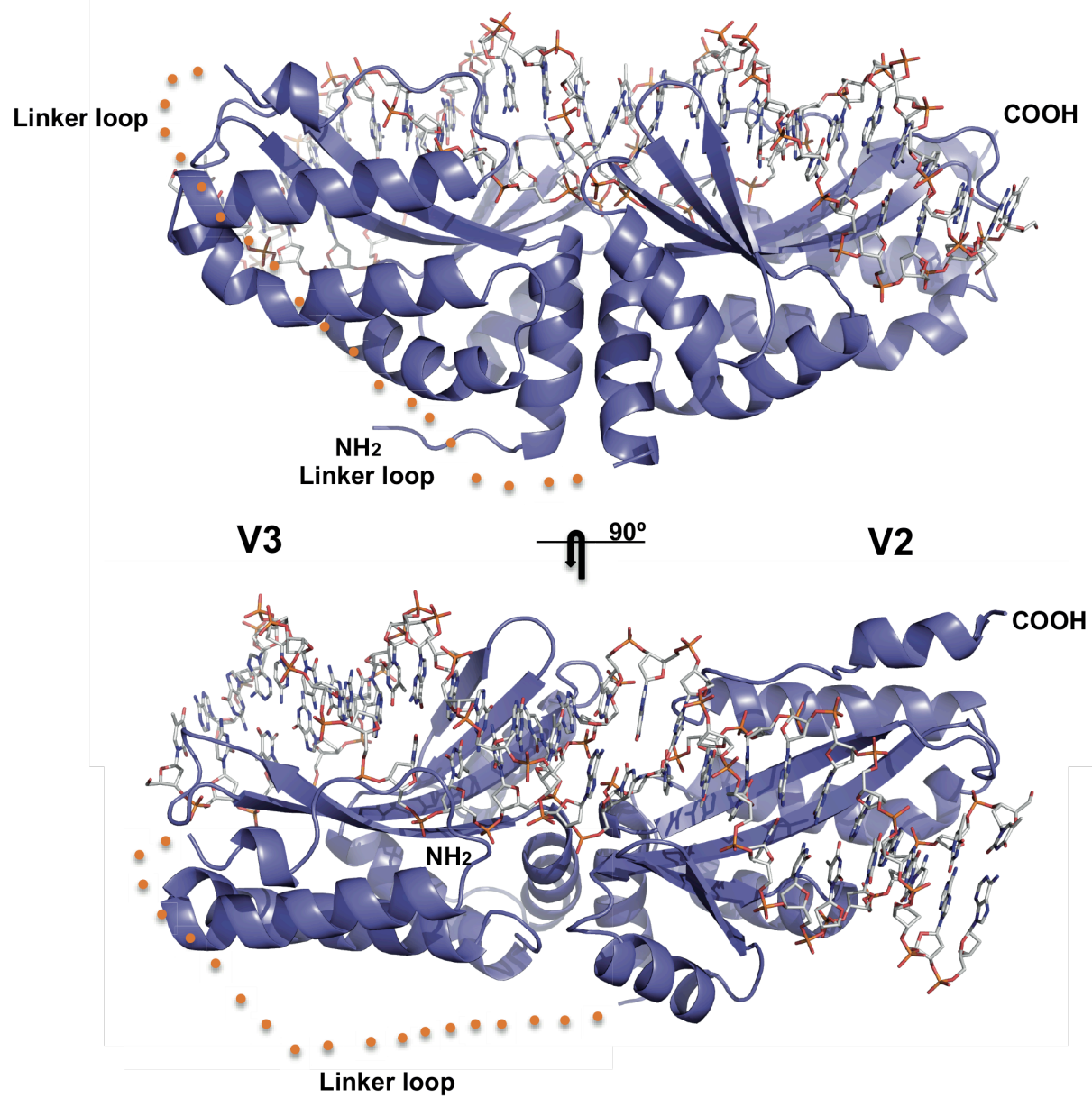


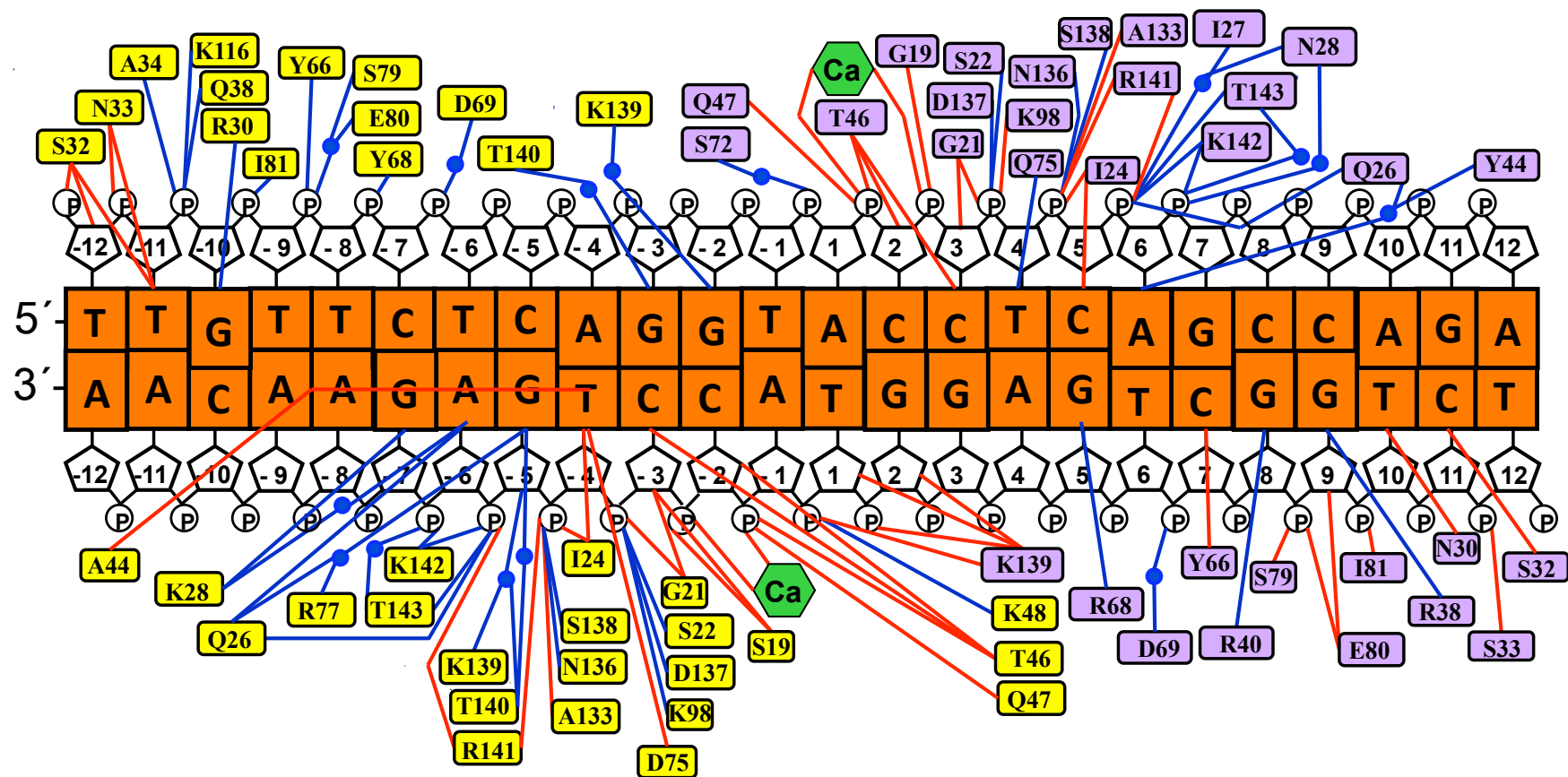
Suppl. Fig. 1





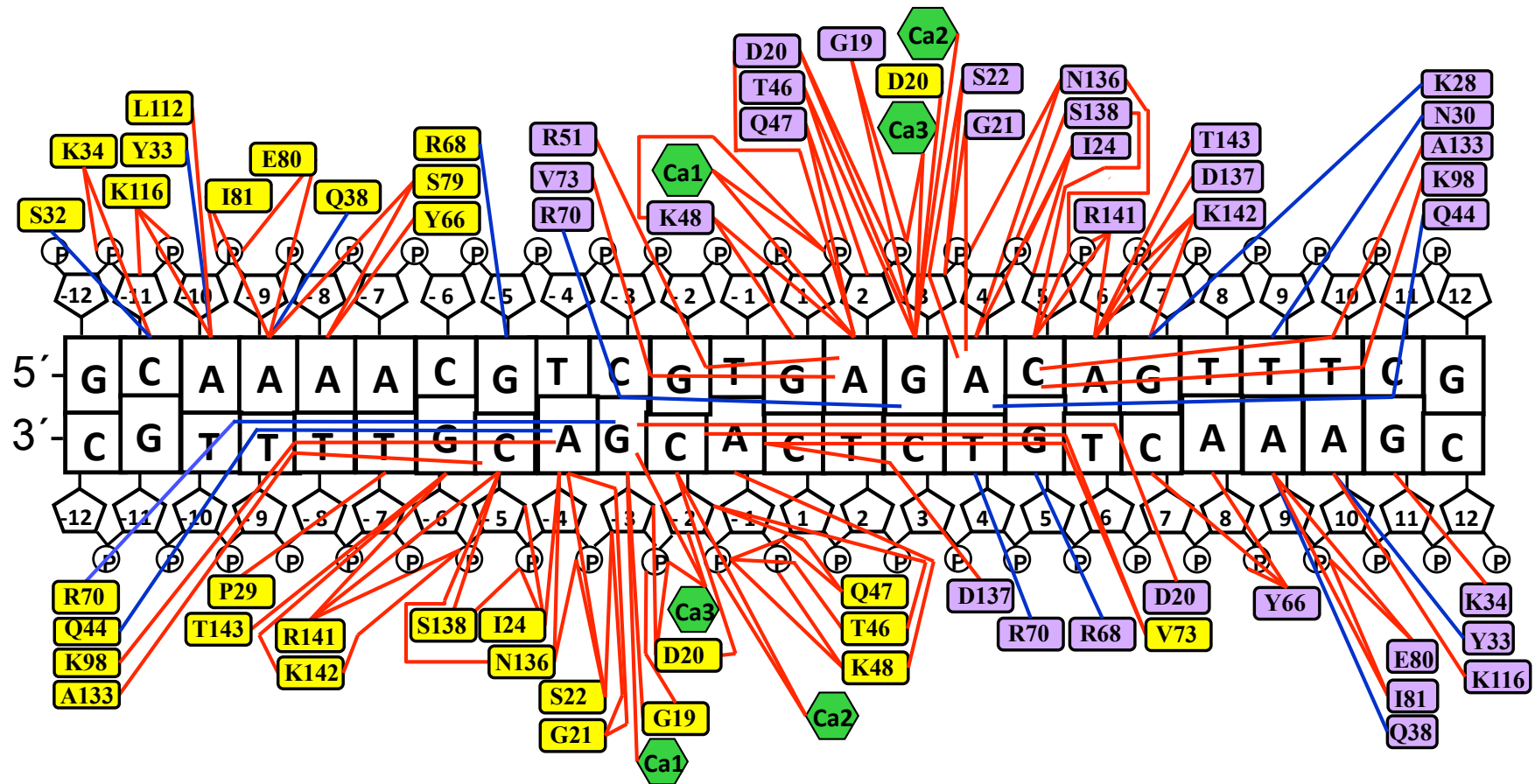
Suppl fig 2

V2(K7E-G19S)/V3(E8K) Ca<sup>2+</sup>









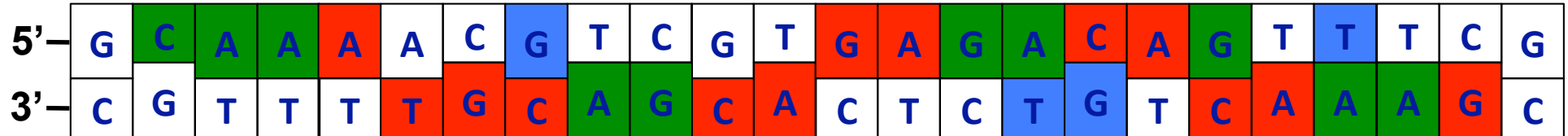
# Suppl fig 3

Hydrogen bond

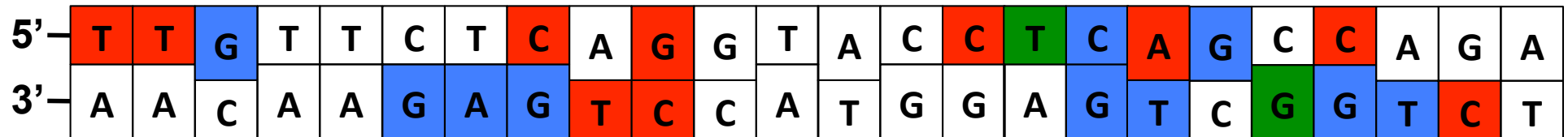
van der Waals contact to base

Hydrogen bond & van der Waals contact to base

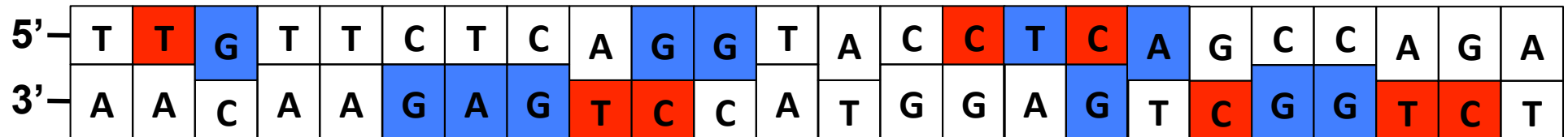
## I-Crel Ca<sup>2+</sup>



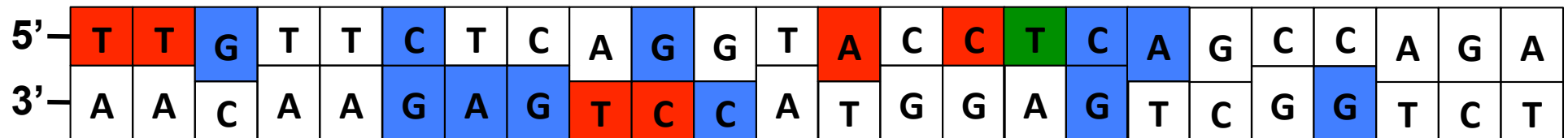
## V2V3 Mg<sup>2+</sup>



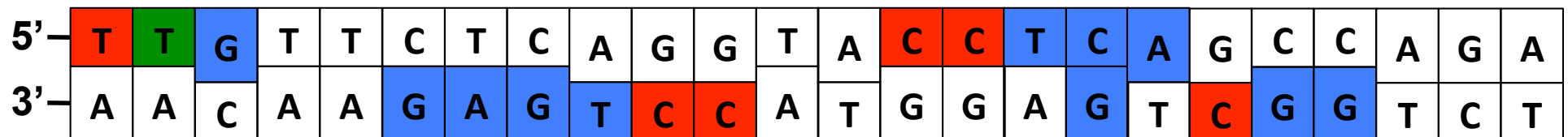
## V2(K7E-G19S)/V3(E8K) Ca<sup>2+</sup>



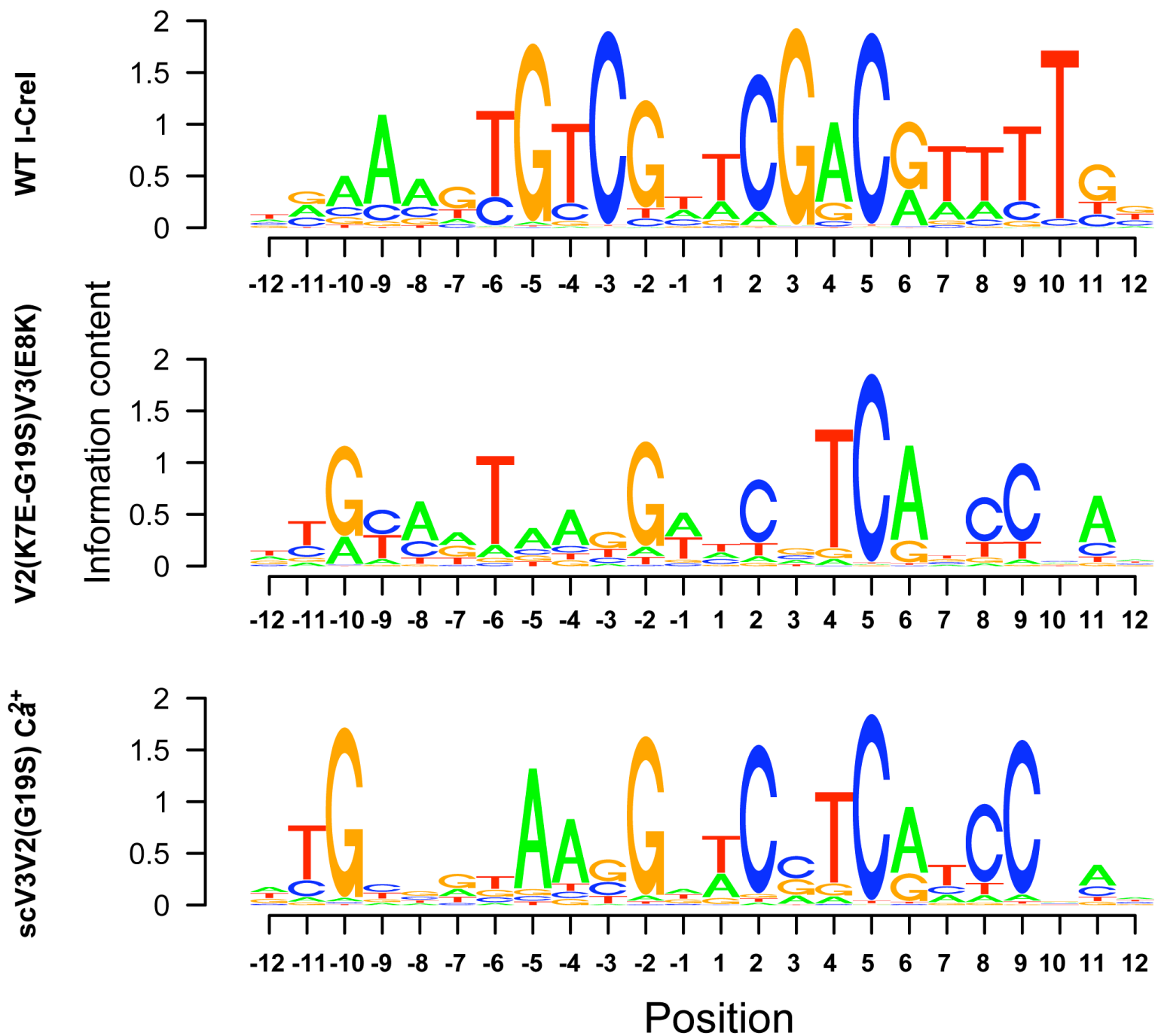
## scV3V2(G19s)



## scV3V2(G19s) Ca<sup>2+</sup>



Suppl. Fig. 4





Suppl. Fig 5

