

Differential effects of diet and weight on taste responses in diet-induced obese mice

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Primer	Annealing Temperature	Sequence
GAPDH (5'-3')	55°C	FP: AGC CTC GTC CCG TAG ACA AAA T RP: CCG TGA GTG GAG TCA TAC TGG A
PLCβ2 (5'-3')	60°C	FP: TTC TAG GCT GCA TCT TGG GC RP: CAA TTG AGG GGC AGC TGA GA
Gustducin	58.4°C	FP:CCTCACCTGTTTAAACAGCATATGTAATCA RP:CCTTAGCCACTTTCTCCTGGAA

Table S1. Real time primers sequences.

Exp cond	AceK test	AceK resp	Sac test	Sac resp	Suc test	Suc resp	Den test	Den resp	KCl test	KCl resp
HF	150	10	152	27	169	13	172	23	166	16
CTL	80	11	72	25	80	10	80	22	80	12
HF+CAP	108	13	94	19	100	12	108	19	108	9
CTL+CAP	72	7	84	26	74	7	86	37	86	16

Table S2. Raw data for taste cell responsiveness. The total number of cells tested and responses for each stimulus for each experimental condition is shown. Amplitude responses in Figures 2 and 3 were calculated from the responding cells in each condition and stimulus.

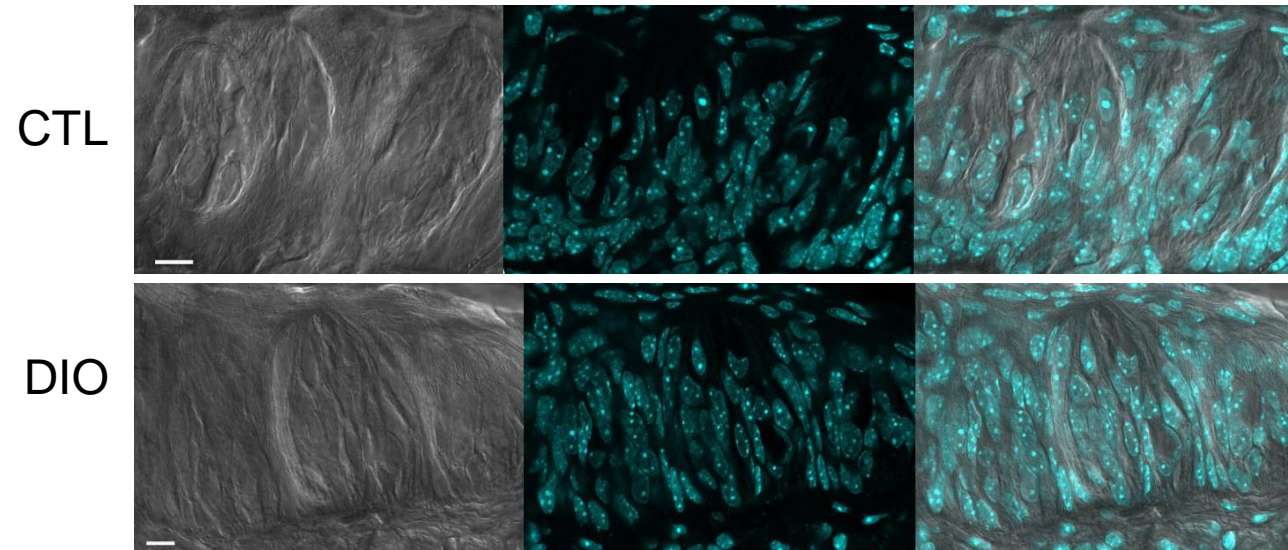


Figure S1: DIO does not affect taste cell number. TRCs in control and DIO mice were counted using DAPI staining to label individual TRCs. Representative images are shown. Scale bar=20 μ m.

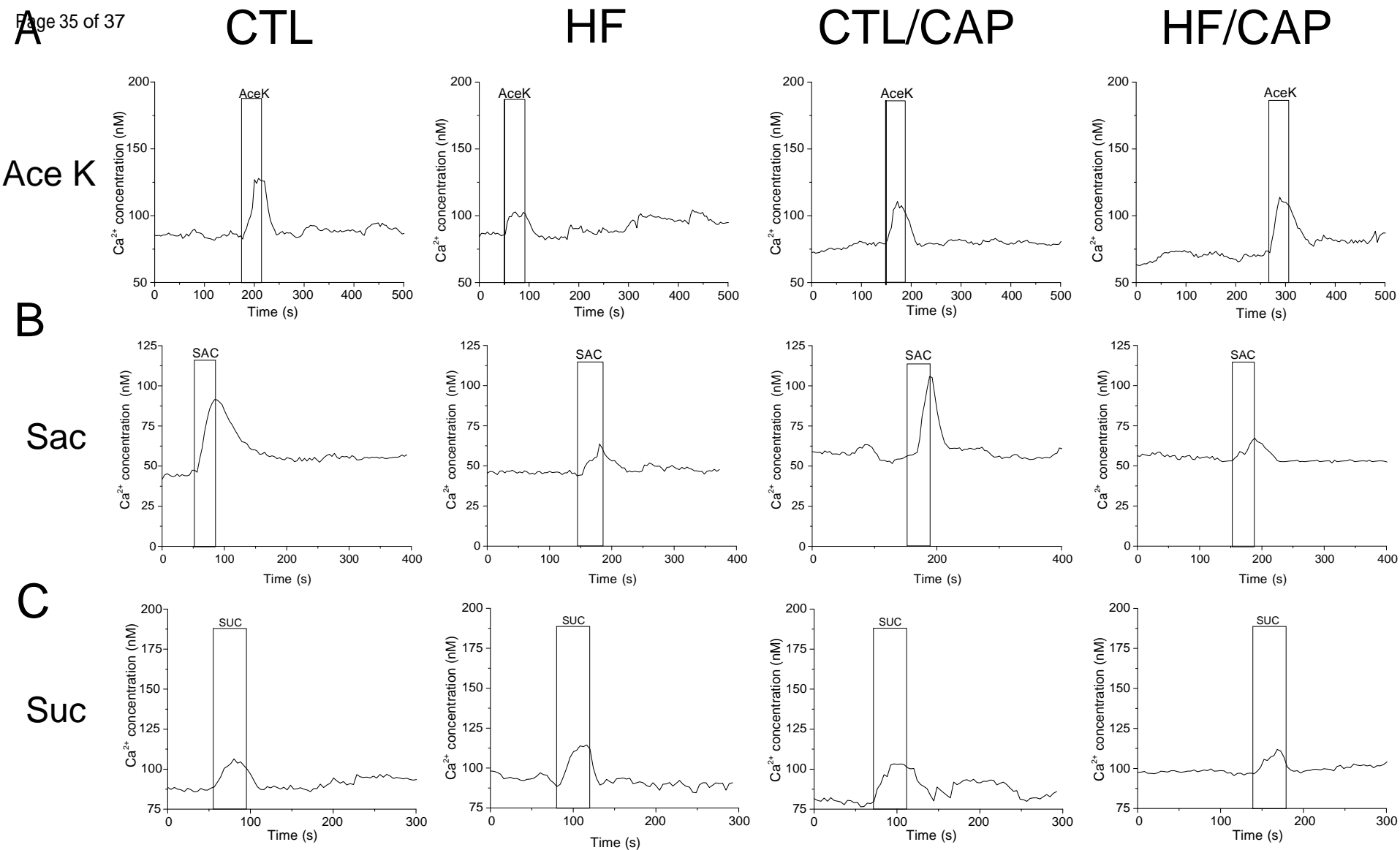


Figure S2: Sweet evoked responses are affected by diet and weight. Representative live cell imaging traces of TRCs that were stimulated with (A) aceK, (B) saccharin, or (C) sucrose from CTL (first column), HF (second column), CTL/CAP (third column) or HF/CAP (fourth column) mice.

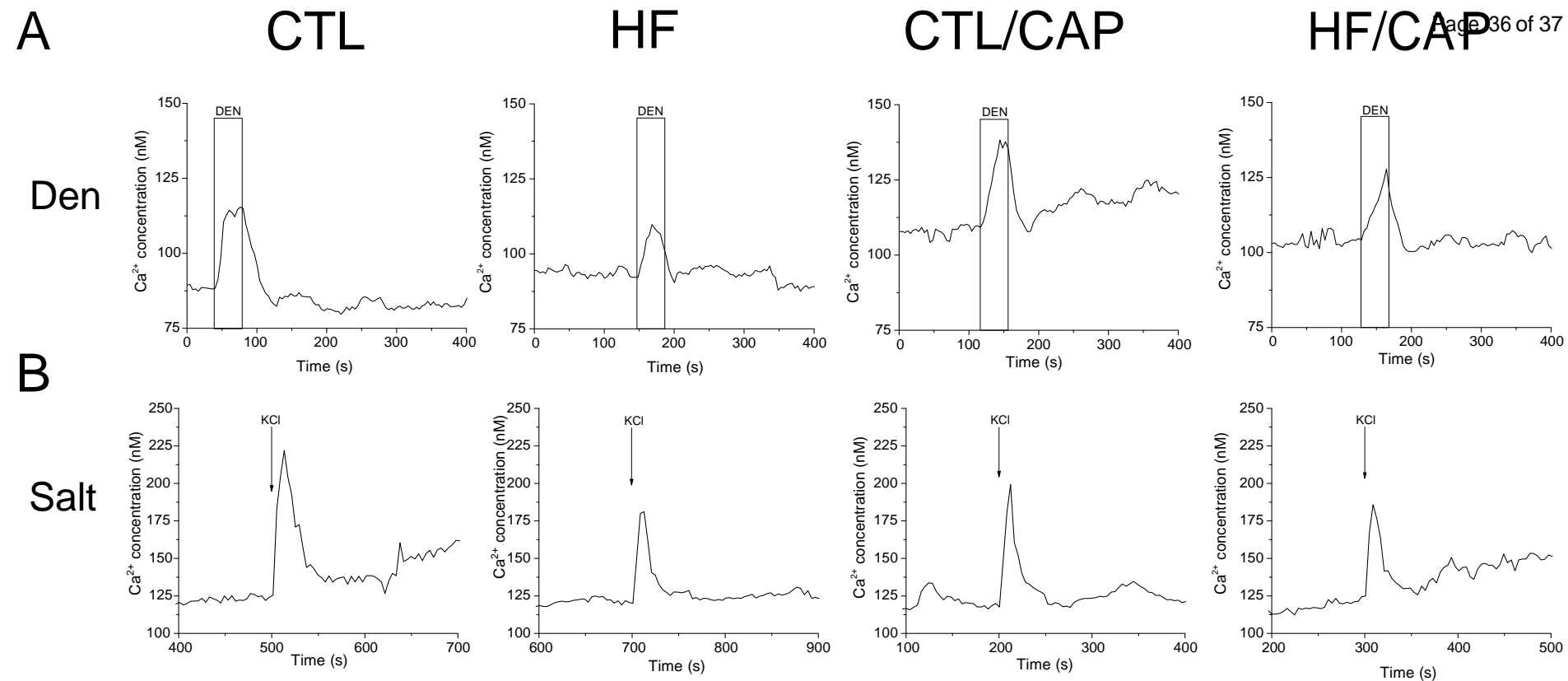


Figure S3: Effects of diet and weight on bitter and salt stimuli. Representative traces of TRCs that were stimulated with **(A)** denatonium, or **(B)** 50mM KCl from CTL (first column), HF (second column), CTL/CAP (third column) or HF/CAP (fourth column) mice.

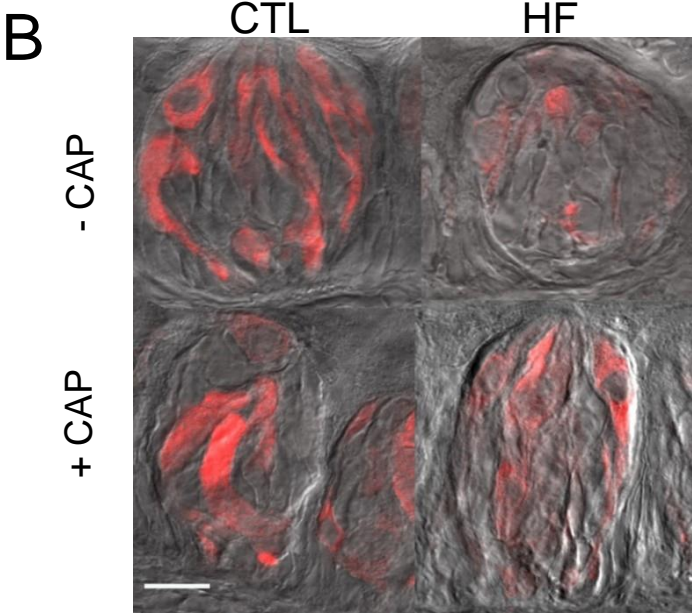
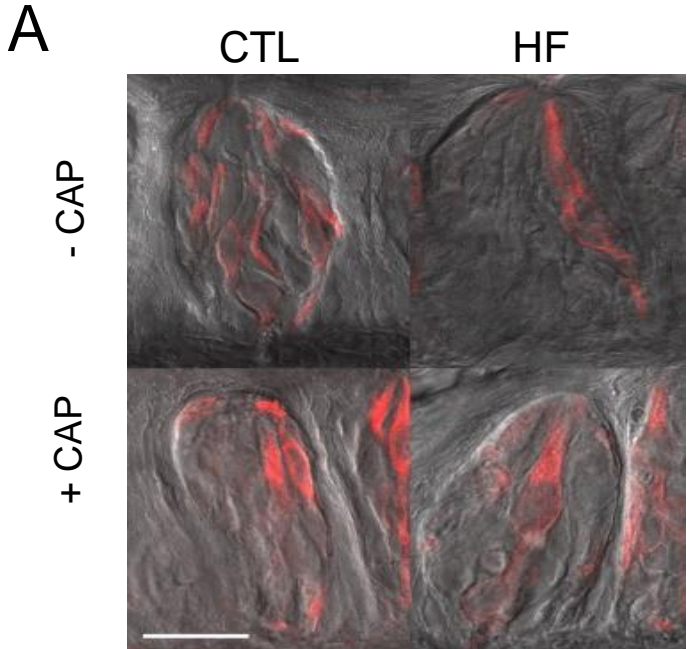


Figure S4: DIO affects the protein expression of α -Gustducin and PLC β 2 expression.

A) Representative immunohistochemical images of α -gustducin expression (red) in the CV taste buds of HF+/- CAP and CTL+/- mice. **B)** Representative immunohistochemical images of PLC β 2 (red) in CV sections of HF and CTL mice +/- CAP. Scale bars=20 μ m.