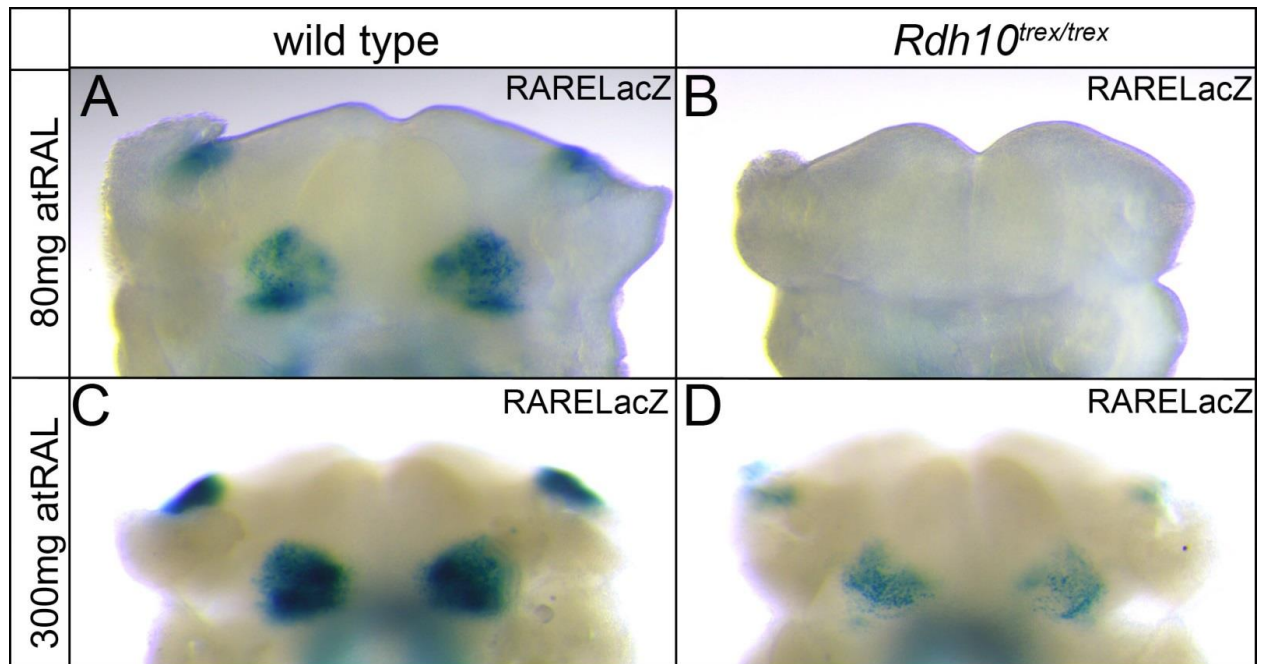


Maternal diet: atRAL /50g food/day E7.5-E11.5		40 µg	80 µg			300 µg	
stage		E14.5	E13.5	E14.5	E15.5	E13.5	E14.5
total embryos		31	52	60	16	25	8
+/+ and +/-	normal	26	43	51	13	16	6
	edema					3	
-/-	overtly normal	0	0	0	0	7	2
	facial & limb defects	5	6	9	3	0	0
-/- total (expected)		5 (9)	6 (14)	9 (17)	3 (4)	7 (6)	3 (2)
resorptions		11	10	15	5	2	1

Table S1. Frequency of *Rdh10*<sup>-/-</sup> embryos recovered following atRAL supplementation in maternal diet.



**Supplementary Figure S1. RA signaling in wild type and *Rdh10*<sup>tr<sup>ex</sup>/tr<sup>ex</sup></sup> mutant mandibles at different doses of atRAL supplementation visualized by activity RARE-lacZ reporter.** (A, B) With 80μg atRAL supplementation, mandibles of *Rdh10*<sup>tr<sup>ex</sup>/tr<sup>ex</sup></sup> mutant embryos lack RA signaling in presumptive SMG domains at E11.5 (B) relative to wild type littermates (A). (C,D) With 300μg atRAL supplementation, RA signaling is partially rescued in presumptive SMG domains of E11.5 mandibles of *Rdh10*<sup>tr<sup>ex</sup>/tr<sup>ex</sup></sup> mutant (D), relative to wild type littermates (C).