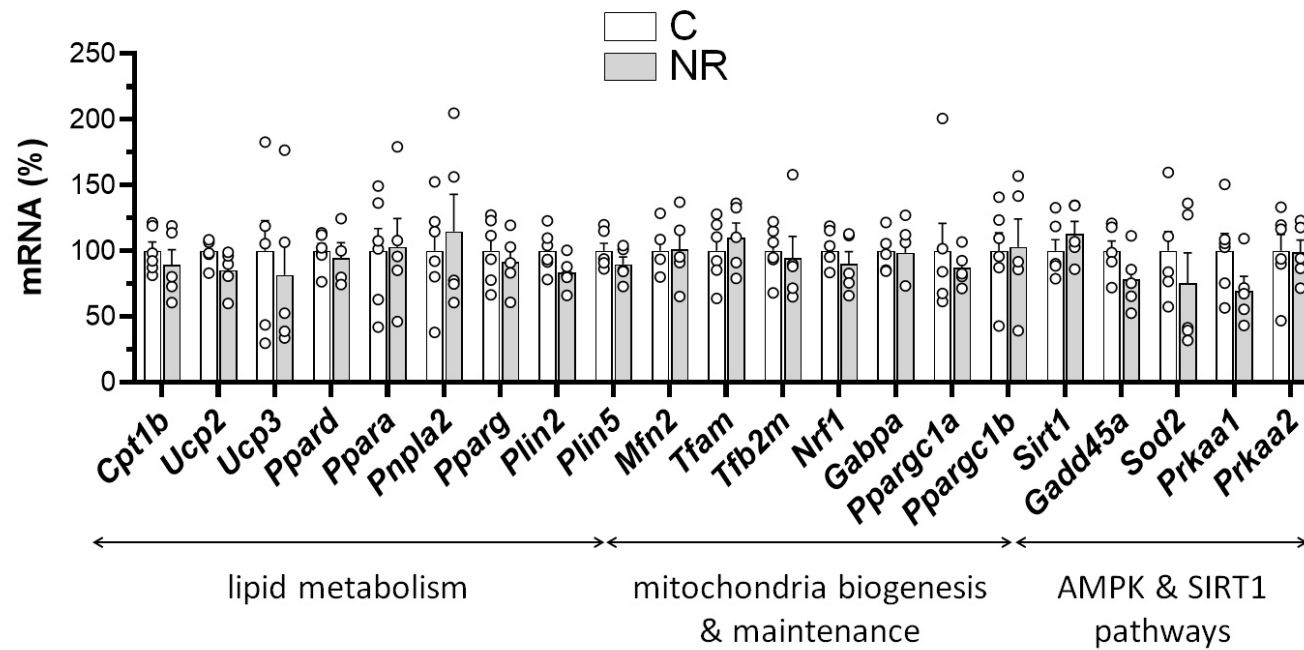


**Supplementary material: Nicotinamide riboside supplementation to suckling male mice improves lipid and energy metabolism in skeletal muscle and liver in adulthood** by Alba Serrano, Andreu Palou, M. Luisa Bonet, Joan Ribot

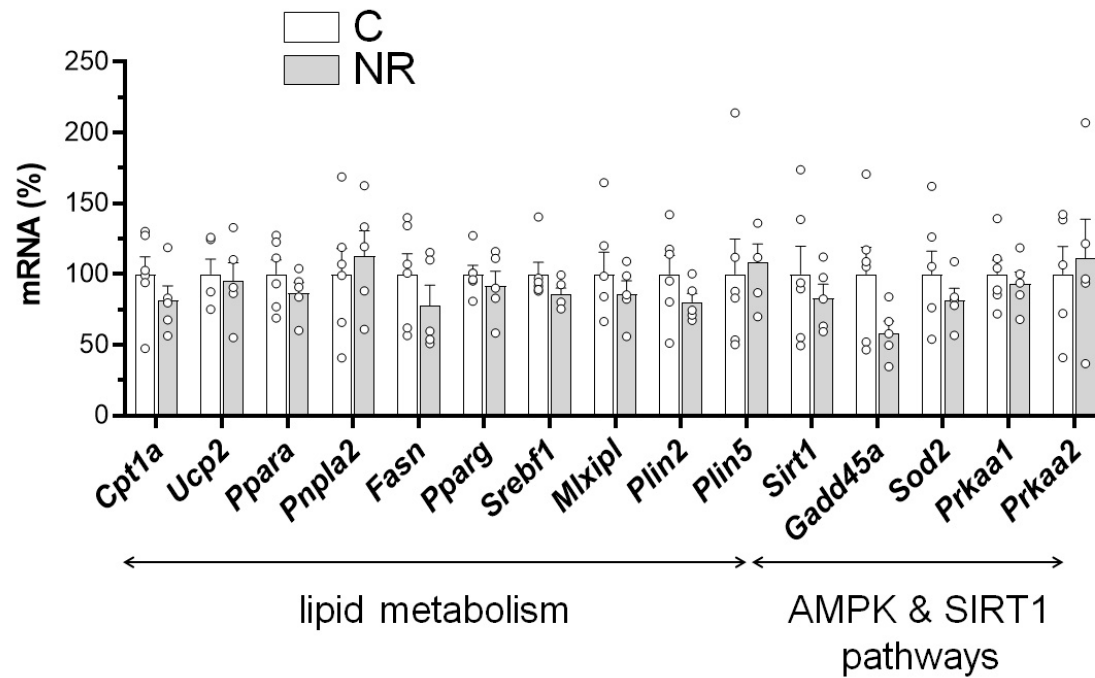
**Supplementary Table S1.** Early-life nicotinamide riboside (NR) treatment attenuated high-fat (HF) diet-induced body fat accumulation and energy efficiency in adulthood despite higher food intake.

	control		NR		ANOVA
	NF	HF	NF	HF	
Body weight (g)	44.6 ± 1.2	52.7 ± 2.6 <sup>#</sup>	45.0 ± 1.9	52.3 ± 1.9 <sup>#</sup>	D
Inguinal WAT (g)	0.685 ± 0.092	1.10 ± 0.13 <sup>#</sup>	0.672 ± 0.044	1.04 ± 0.12	D
Epididymal WAT (g)	1.30 ± 0.22	2.08 ± 0.23 <sup>#</sup>	1.27 ± 0.16	2.13 ± 0.43	D
Retroperitoneal WAT (g)	0.295 ± 0.037	0.506 ± 0.053 <sup>#</sup>	0.328 ± 0.041	0.485 ± 0.095	D
Adipose index (%)	5.04 ± 0.59	7.03 ± 0.61 <sup>#</sup>	5.00 ± 0.35	6.82 ± 1.18	D
Energy intake (kcal/mice)	1,176 ± 44	1,237 ± 36	1,146 ± 34	1,394 ± 73 <sup>#</sup>	D
Energy efficiency (g/Mcal)	0.658 ± 0.357	4.45 ± 0.131 <sup>#</sup>	0.011 ± 1.250	4.93 ± 1.49	D

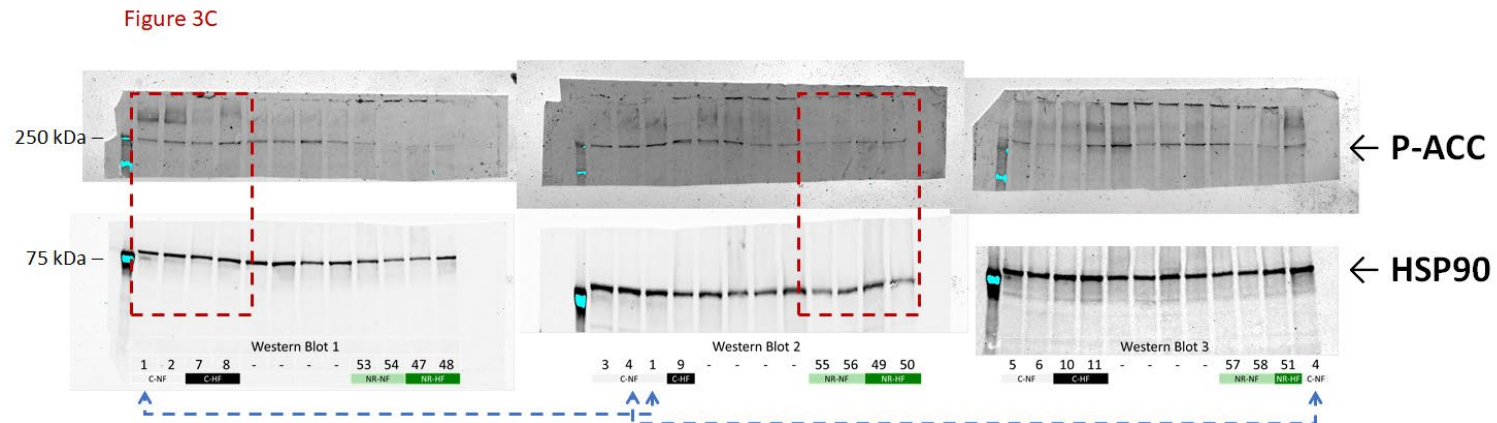
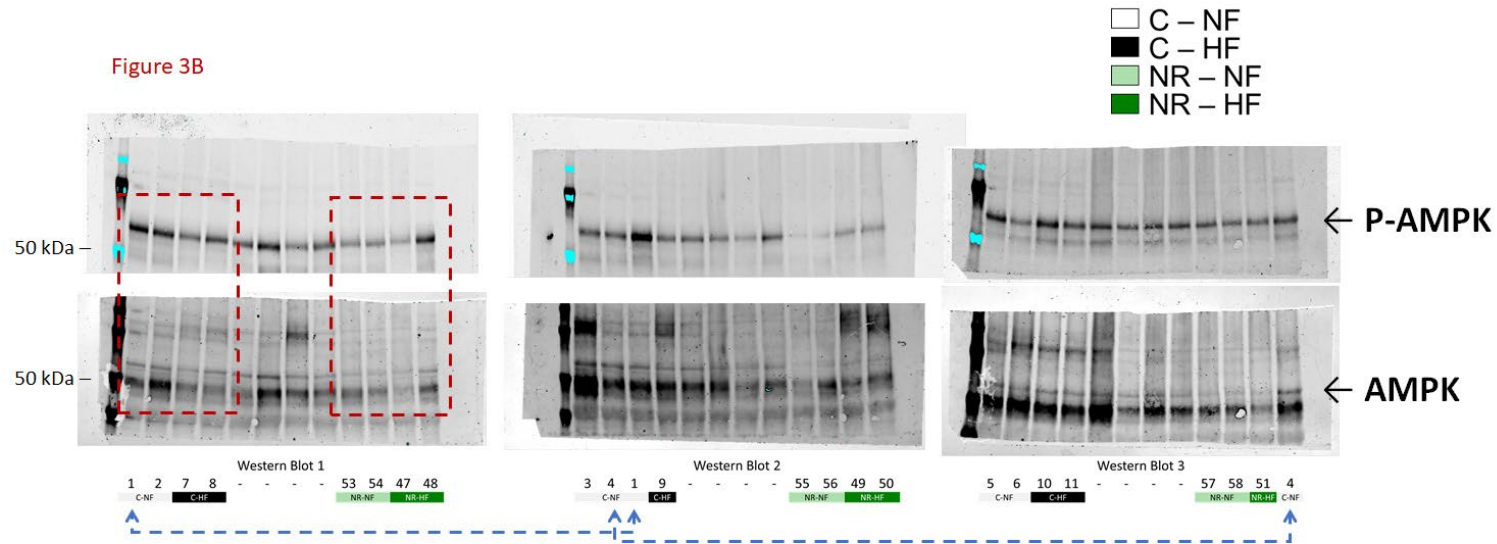
Newborn male mice received NR or vehicle (water; control) from day 2 to 20 of age, were weaned onto a chow diet on day 21, and were assigned to either a HF or a normal-fat (NF) diet on day 90, for 10 weeks. Body and white adipose tissue (WAT) pad weights, and adiposity index (combined mass of all fat pads taken expressed as a percentage of body weight) at the end of the experiment, data are the mean±SEM of n=5-6 animals per group. Cumulative food intake and energy efficiency (body weight gained per calories consumed) are calculated on a per-cage basis and are the mean±SEM of 2-3 cages per group (2-3 animals per cage) along with HF diet challenge. Statistics (P<0.05): D diet effect (two-way ANOVA); <sup>#</sup> HF vs NF (t-Student).



**Supplementary Figure S1.** Early-life nicotinamide riboside (NR) treatment did not significantly affect lipid metabolism capacities and mitochondria pathways in skeletal muscle of mice at a young age. Newborn male mice received NR or vehicle (water; control) from day 2 to 20 of age and were weaned onto a chow diet on day 21. mRNA levels of the indicated genes were analyzed in *Gastrocnemius* skeletal muscle at age of 35 days. Data are the mean±SEM of 5-6 animals per group and are expressed relative to the mean value of the control group, which was set to 100. Circles correspond to individual data.



**Supplementary Figure S2.** Early-life nicotinamide riboside (NR) treatment did not significantly affect lipid metabolism capacities in liver of mice at a young age. Newborn male mice received NR or vehicle (water; control) from day 2 to 20 of age and were weaned onto a chow diet on day 21. mRNA levels of the indicated genes were analyzed in liver at age of 35 days. Data are the mean±SEM of 5-6 animals per group and are expressed relative to the mean value of the control group, which was set to 100. Circles correspond to individual data.



**Supplementary Figure S3.** Original images supporting western blot results shown in the histograms in Figure 3 panels B and C. All independent biological replicates used in the analysis are included (5-6 animals per group). Red boxes correspond to the cropped images used for illustration in Figure 3. Blue lines connect the technical replicates used to compare membranes with each other.