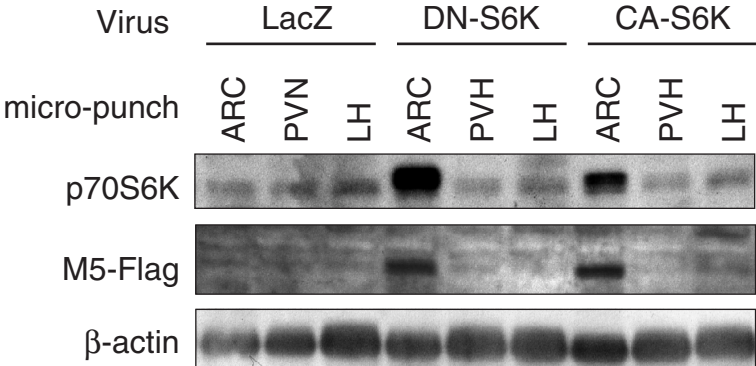


Supplemental Fig. 1



**Suppl. Fig. 1. Adenoviral overexpression is limited to the MBH.** Representative bands of the S6K protein level in the ARC (arcuate nucleus), PVN (paraventricular nuclei of the hypothalamus) and LH (lateral hypothalamus) of rats expressing LacZ (n=4), CA-S6K (n=4) or DN-S6K (n=4), detected by anti-S6K or anti-Flag. Quantitation of S6K and Flag bands from PVN and LH revealed no significant differences between the viruses.

# Supplementary Table 1

Body weight (g) before the first surgery, the second surgery, and the clamp; plasma insulin (ng/mL) and glucose (mg/dL) levels before the start of MBH insulin, and during the basal and clamped periods.

	No Virus						One-day HF plus MBH insulin			Hyperinsulinemic clamp	
	NV-VEH	NV-INS	HF-INS	LZ-VEH	LZ-INS	CA-S6K-INS	LZ	DN-S6K	Raptor/ $\Delta$ CT	LZ	CA-S6K
Body Weight (first surgery)	299 $\pm$ 4	300 $\pm$ 7	298 $\pm$ 4	298 $\pm$ 5	301 $\pm$ 8	301 $\pm$ 12	304 $\pm$ 12	301 $\pm$ 7	302 $\pm$ 9	309 $\pm$ 10	304 $\pm$ 14
Body Weight (second surgery)	310 $\pm$ 8	312 $\pm$ 9	310 $\pm$ 5	309 $\pm$ 7	306 $\pm$ 6	305 $\pm$ 10	303 $\pm$ 11	303 $\pm$ 8	300 $\pm$ 9	316 $\pm$ 13	305 $\pm$ 12
Body Weight (clamp)	309 $\pm$ 7	312 $\pm$ 6	311 $\pm$ 7	303 $\pm$ 4	300 $\pm$ 5	301 $\pm$ 11	304 $\pm$ 11	301 $\pm$ 7	302 $\pm$ 10	313 $\pm$ 10	307 $\pm$ 11
Insulin (pre-MBH insulin)	1.1 $\pm$ 0.4	1.1 $\pm$ 0.3	1.5 $\pm$ 0.4	1.0 $\pm$ 0.3	1.0 $\pm$ 0.4	1.2 $\pm$ 0.3	1.4 $\pm$ 0.5	1.1 $\pm$ 0.4	1.3 $\pm$ 0.4	NA	NA
Insulin (basal period)	1.0 $\pm$ 0.1	1.0 $\pm$ 0.2	1.1 $\pm$ 0.2	1.1 $\pm$ 0.1	1.0 $\pm$ 0.1	1.3 $\pm$ 0.2	1.2 $\pm$ 0.3	1.0 $\pm$ 0.3	1.1 $\pm$ 0.2	1.5 $\pm$ 0.4	1.6 $\pm$ 0.3
Insulin (clamp period)	1.1 $\pm$ 0.2	1.2 $\pm$ 0.1	1.3 $\pm$ 0.2	1.3 $\pm$ 0.2	1.4 $\pm$ 0.2	1.3 $\pm$ 0.1	1.6 $\pm$ 0.3	1.6 $\pm$ 0.3	1.5 $\pm$ 0.2	4.2 $\pm$ 0.3	5.3 $\pm$ 0.7
Glucose (pre-MBH insulin)	160 $\pm$ 4	158 $\pm$ 7	167 $\pm$ 10	155 $\pm$ 7	152 $\pm$ 7	166 $\pm$ 8	176 $\pm$ 8	162 $\pm$ 4	174 $\pm$ 4	NA	NA
Glucose (basal period)	152 $\pm$ 6	153 $\pm$ 9	147 $\pm$ 4	150 $\pm$ 10	145 $\pm$ 11	160 $\pm$ 7	151 $\pm$ 6	145 $\pm$ 9	146 $\pm$ 6	148 $\pm$ 5	154 $\pm$ 4
Glucose (clamp period)	145 $\pm$ 4	140 $\pm$ 6	153 $\pm$ 5	142 $\pm$ 8	134 $\pm$ 9	156 $\pm$ 7	151 $\pm$ 9	140 $\pm$ 11	139 $\pm$ 5	147 $\pm$ 5	150 $\pm$ 5