

SUPPLEMENTARY DATA

Supplementary Figure 1. Elevated glycosuria, which is reversed after epinephrine treatment, in weight-matched ArcPOMC-deficient mice during oral glucose tolerance (OGTT). (A) Semiquantitative urine glucose levels during OGTT, n=12; (B) Semi-quantitative urine glucose levels during OGTT in epinephrine treated mice, n=14.

A

Number of weight-matched mice that manifested glycosuria during OGTT										
Urine Glucose (mg/dl)	15 min		30 min		60 min		120 min			
	WT	Mutant	WT	Mutant	WT	Mutant	WT	Mutant	WT	Mutant
100	0	0	0	0	0	0	0	0	0	0
250	7	0	8	0	0	0	0	0	0	5
500	5	0	0	8	0	12	0	7	0	0
1000	0	5	0	4	0	0	0	0	0	0
>2000	0	7	0	0	0	0	0	0	0	0

B

Number of mice that manifested glycosuria during OGTT in the presence of epinephrine								
Urine Glucose (mg/dl)	15 min		30 min		60 min		120 min	
	WT	Mutant	WT	Mutant	WT	Mutant	WT	Mutant
100	8	12	11	9	0	0	0	0
250	6	2	3	5	0	0	0	0
500	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0
>2000	0	0	0	0	0	0	0	0

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Supplementary Figure 2. MT II reverses glycosuria in ArcPOMC-deficient mice and Agrp induces glycosuria in WT mice. (A) Semi-quantitative urine glucose levels during OGTT after MT II or saline treatment in ArcPOMC-deficient mice, n=12; (B) Semi-quantitative urine glucose levels during OGTT after Agrp or saline treatment in WT mice, n=12.

A

Number of ArcPOMC KO mice that manifested glycosuria during OGTT								
Urine Glucose (mg/dl)	15 min.		60 min.		120 min.			
	Saline	MT II	Saline	MT II	Saline	MT II	Saline	MT II
100	0	0	0	6	0	0	0	0
250	0	6	0	0	2	0	0	0
500	4	0	1	0	3	0	0	0
1000	2	0	5	0	0	0	0	0
>2000	0	0	0	0	0	0	0	0

B

Number of WT mice that manifested glycosuria during OGTT								
Urine Glucose (mg/dl)	15 min.		60 min.		120 min.			
	Saline	Agrp	Saline	Agrp	Saline	Agrp	Saline	Agrp
100	3	0	4	0	0	0	0	0
250	3	6	2	5	0	0	0	0
500	0	0	0	1	0	0	0	0
1000	0	0	0	0	0	0	0	0
>2000	0	0	0	0	0	0	0	0