

**Table S4. Brain amino acid levels after leucine and isoleucine i.c.v. administration**

	<i>Slc7a5</i> <sup>f1/f1</sup>	<i>Tie2</i> <sup>Cre</sup> ; <i>Slc7a5</i> <sup>f1/f1</sup>
<b>GLUTAMIN</b>	1 ± 0.51	1.25 ± 0.20
<b>CITRULLINE</b>	1 ± 0.21	1.07 ± 0.15
<b>SERINE</b>	1 ± 0.39	2.66 ± 0.25 **
<b>4-HYDROXYPROLINE</b>	1 ± 0.55	0.96 ± 0.13
<b>GLYCINE</b>	1 ± 0.36	2.07 ± 0.18 **
<b>THREONINE</b>	1 ± 0.53	2.25 ± 0.14 **
<b>GABA</b>	1 ± 0.32	0.88 ± 0.08
<b>PROLINE</b>	1 ± 0.22	1.58 ± 0.11 **
<b>HISTIDINE</b>	1 ± 0.55	4.51 ± 0.60 **
<b>VALINE</b>	1 ± 0.32	0.94 ± 0.11
<b>TRYPTOPHAN</b>	1 ± 0.37	2.25 ± 0.43 **
<b>PHENYLALANINE</b>	1 ± 0.31	2.01 ± 0.15 **
<b>LEUCINE</b>	1 ± 0.23	0.96 ± 0.13
<b>ISOLEUCINE</b>	1 ± 0.25	1.09 ± 0.17
<b>THYROSINE</b>	1 ± 0.33	2.17 ± 0.18 **

Relevant brain amino acid were measured by HPLC. Levels measured in the mutant mice were normalized on control levels.