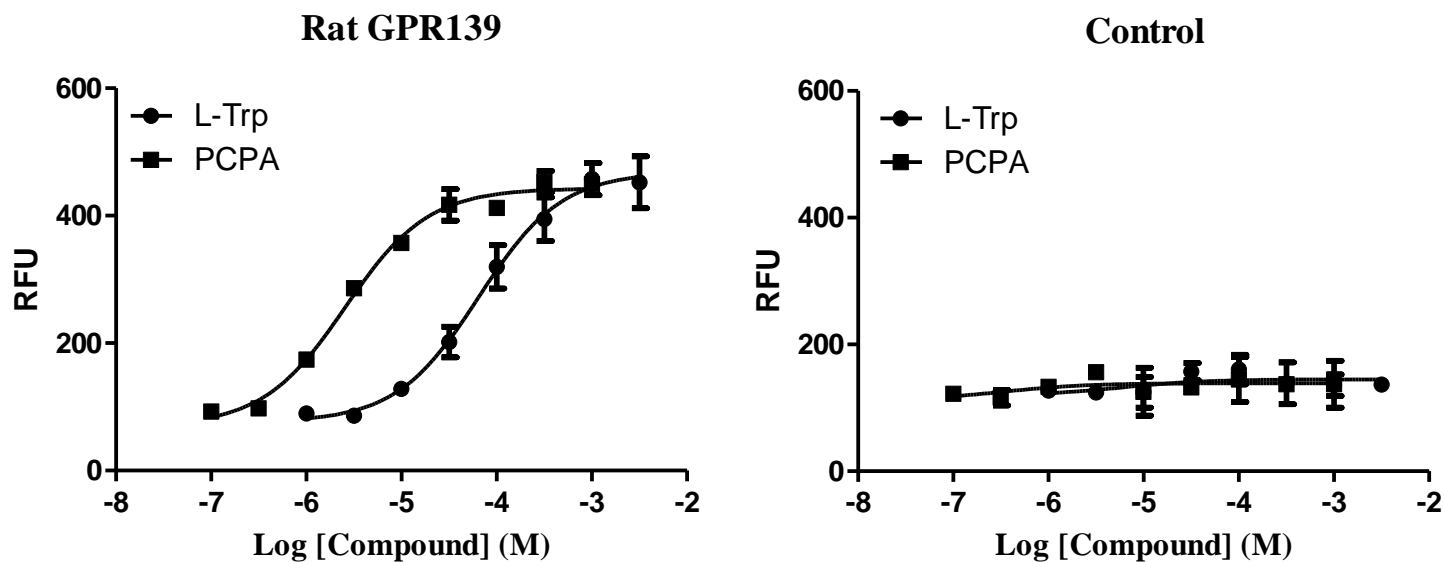


Molecular Pharmacology
Supplemental data

GPR139, an orphan receptor highly enriched in the habenula and septum, is activated by the essential amino acids L-tryptophan and L-phenylalanine

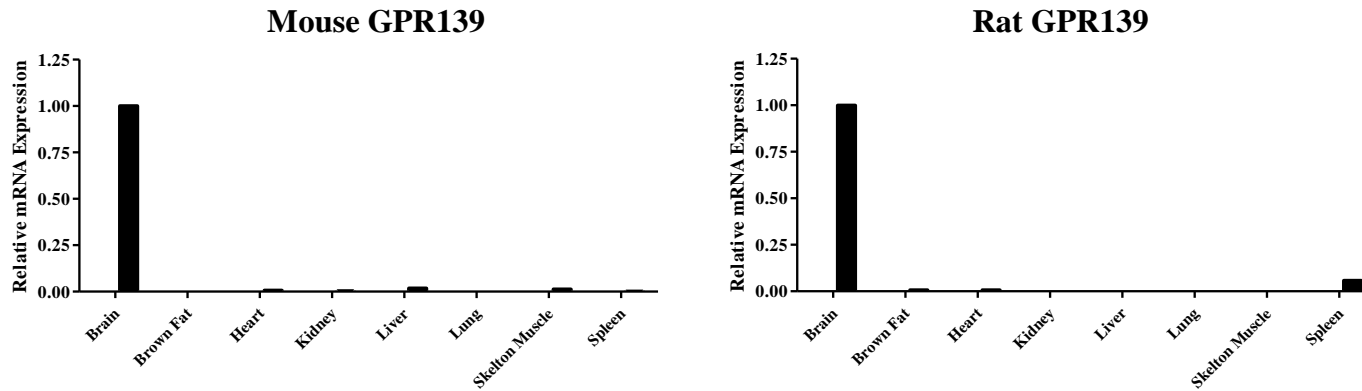
Changlu Liu[#], Pascal Bonaventure[#], Grace Lee, Diane Nepomuceno, Chester Kuei, Jiejun Wu, Qingqin Li, Victory Joseph, Steven Sutton, William Eckert, Xiang Yao, Lynn Yieh, Curt Dvorak, Nicholas Carruthers, Heather Coate, Sujin Yun, Christine Dugovic, Anthony Harrington and Timothy Lovenberg

Supplemental Figure 1



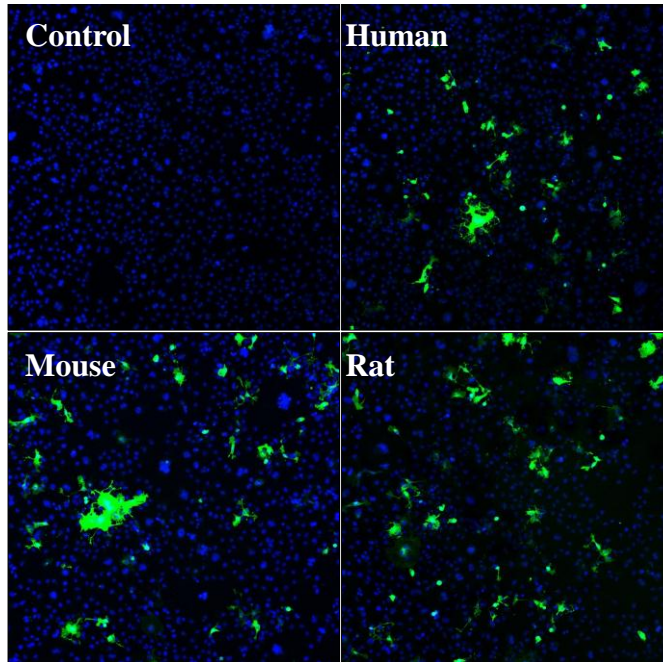
Supplementary Figure 1. Concentration response of L-Trp and PCPA calcium mobilization in HEK293 cells transfected with rat GPR139 (left panel) or control cells (right panel). Results are presented as mean \pm S.D. (n=2).

Supplemental Figure 2



Supplementary Figure 2. Expression of GPR139 mRNA in mouse and rat tissues analyzed by quantitative RT-PCR. cDNA was purchased from Clontech (Palo Alto, CA). The expression of GPR139 mRNA was normalized using the expression of β -actin mRNA in the same samples. The expression of GPR139 mRNA in the brains was arbitrarily set as 1. All samples were assayed in duplicate.

Supplemental Figure 3



Supplemental Figure 3. Characterization of GPR139 antibodies. The rabbit anti-GPR139 N-terminus antibody was used to stain COS7 cells transfected with either human, mouse, or rat GPR139 cDNA. Mock transfected cells were used as control. Specific staining (green) for human, mouse, and rat GPR139 is shown. DAPI staining (blue) shows the nuclei.