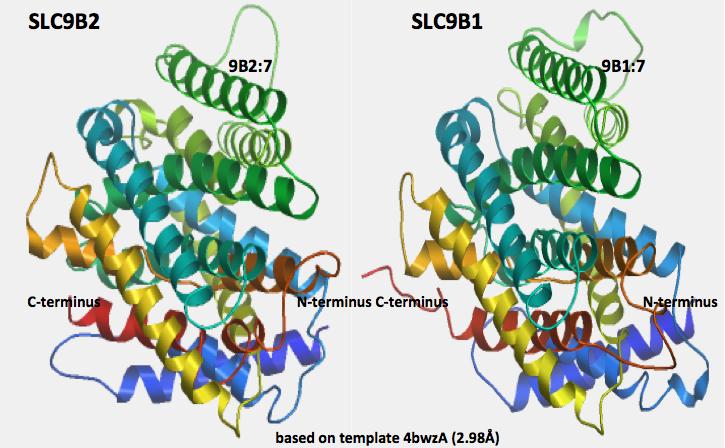
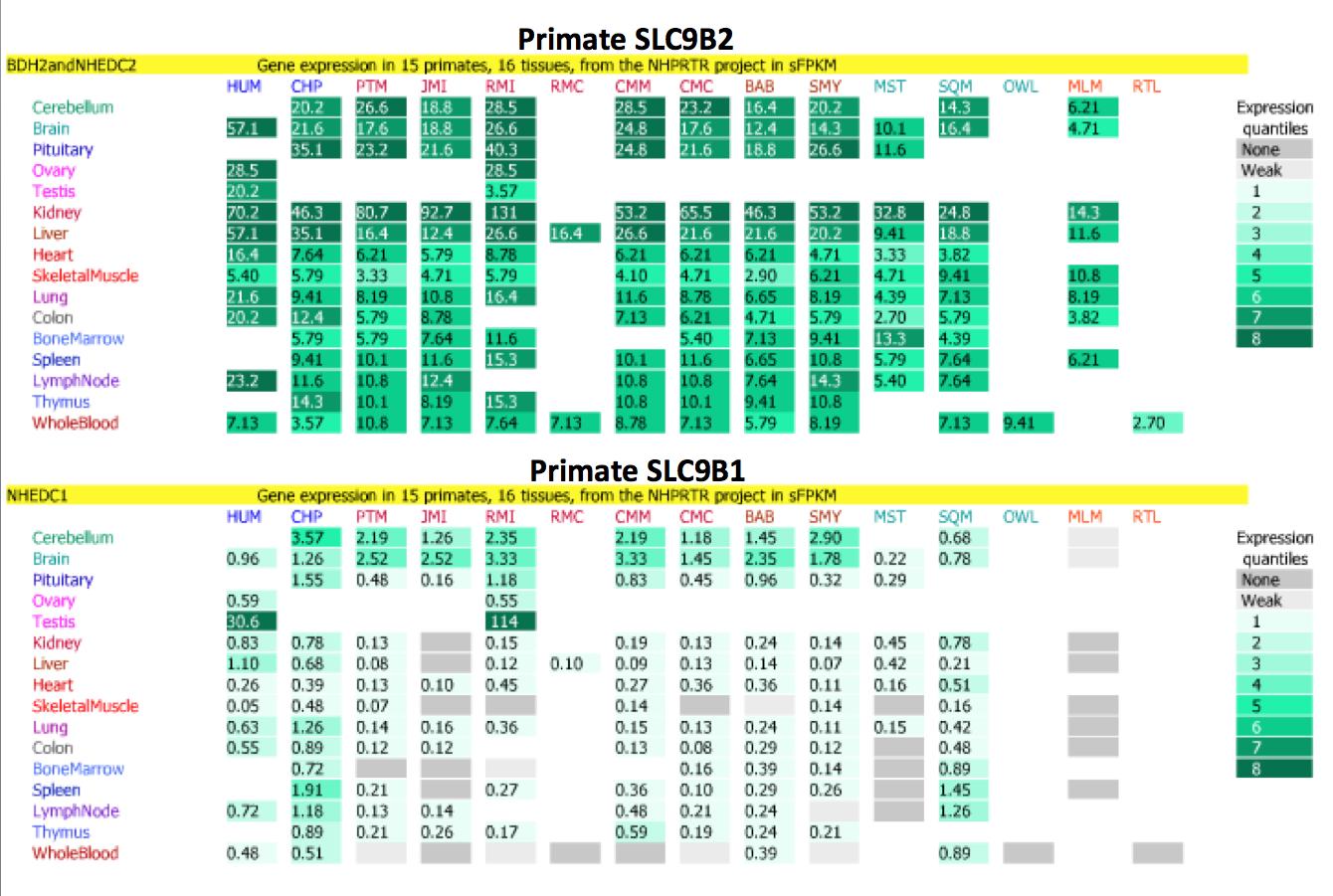
**Supplementary Figures**

**Figure S1:** Predicted Tertiary Structures for Human SLC9B2 and SLC9B1

The predicted tertiary structures are based on the SWISS MODEL web site based on PDB 4bwzA http://swissmodel.expasy.org/workspace. The rainbow color code describes the predicted 3D structures from the N- (blue) to C-termini (red);αpredicted -helices,β -sheets and transmembrane 7 (9B2:7 and 9B1:7) are shown.

**Figure S2:** Comparative SLC9B2 Primate Tissue Expression



RNA-seq gene expression profile across 16 selected tissues from the Non-Human Primates Reference Transcriptome Taken from AceView http://www.ncbi.nlm.nih.gov/IEB/Research/Acembly/ [15].

Primates: Apes (HUM: Human (Illumina BodyMap 2), CHP: Chimpanzee), Old World monkeys (PTM: Pig-Tailed Macaque, JMI Japanese Macaque, RMI Rhesus Macaque Indian, RMC Rhesus Macaque Chinese, CMM Cynomolgus Macaque Mauritian, CMC Cynomolgus Macaque Chinese, BAB Olive Baboon, SMY Sooty Mangabey); New World monkeys (MST common Marmoset, SQM Squirrel Monkey, OWL Owl Monkey); and Lemurs (MLM Mouse Lemur, RTL Ring-Tailed Lemur).

The level for significantly expressed genes is color coded in 8 equal sized bins (light to dark green).