The PGRMC1 protein level correlates with the binding activity of a sigma-2 fluorescent probe (SW120) in rat brain cells

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Supplemental Fig. 1. PGRMC1 expression and SW120 binding activity in partially differentiated rat cortical oligodendrocytes. Partially differentiated rat cortical oligodendrocytes were cultured. a The cells were double immunostained for PGRMC1 and oligodendrocyte marker NG2. b The cells were double immunostained for SW120 and NG2. Note the different levels of expression of PGRMC1 and NG2 in early (arrowhead) versus late (arrow) oligodendrocytes, suggesting that PGRMC1 expression is present in multiple stages of oligodendrocyte differentiation.
Supplemental Fig. 2. The PGRMC1 expression level and the SW120 binding activity varies in hippocampal microglia. Glia cell mixture from embryonic day 18 rat hippocampus were cultured. a The cells were double immunostained for PGRMC1 and microglia marker Iba1. Note that some microglia cells (arrow) express more PGRMC1 than other microglia cells (arrow head), possibly indicating that the PGRMC1 levels depend on the activation state of microglia cells. b The cells were double immunostained for SW120 and Iba1. Note that some microglia cells (arrow) bind more SW120 than other microglia cells (arrow head).
Supplemental Fig. 3. Characterization of purified rat cortical neurons, astrocytes and microglia. The isolated cells were immunostained by neuron marker β3-tubulin, astrocyte marker GFAP, microglia marker Iba1 and oligodendrocyte marker GalC. The isolated cells for each cell type appear to be highly pure. Note, although Iba1 is commonly accepted as a microglia marker, neurons express Iba1 as well.