

**Additional file 2:** Screening of 21 chemical related GPR55 receptor antagonists (KIT 1 - KIT 21) on LPS-induced PGE<sub>2</sub> synthesis in microglial cells.

| Compound | Corresponding number according Rempel et al., 2013 | Prostaglandin E <sub>2</sub> Release Inhibition 100 μM |                        |
|----------|--|--|------------------------|
| KIT 1    | 35   | **   |                        |
| KIT 2    | 13   | *  |                        |
| KIT 3    | 14   | ***  |                        |
| KIT 4    | Unpublished  | *  |                        |
| KIT 5    | 29   | ***  |                        |
| KIT 6    | Unpublished  | *  |                        |
| KIT 7    | Unpublished  | **   | * 10-50% inhibition    |
| KIT 8    | Unpublished  | *  | ** 50-90% inhibition   |
| KIT 9    | Unpublished  | *  | *** 90-100% inhibition |
| KIT 10   | Unpublished  | ***  |                        |
| KIT 11   | 38   | *  |                        |
| KIT 12   | 39   | ***  |                        |
| KIT 13   | Unpublished  | *  |                        |
| KIT 14   | Unpublished  | ***  |                        |
| KIT 15   | Unpublished  | *  |                        |
| KIT 16   | Unpublished  | **   |                        |
| KIT 17   | 37   | ***  |                        |
| KIT 18   | 27   | ***  |                        |
| KIT 19   | Unpublished  | **   |                        |
| KIT 20   | Unpublished  | **   |                        |
| KIT 21   | 41   | ***  |                        |