Profiling of tryptophan metabolic pathways in the rat fetoplacental unit during gestation

SUPPLEMENTARY INFORMATION

Table 1. List of Predesigned Probe Assays (FAM and HEX) Used in qPCR and ddPCR Analysis. All Primers Were Obtained from Thermo Fisher Scientific, Waltham, MA, USA, except the HEX Assay, Which Was Obtained from BioRad, Hercules, CA, USA.

| Gene symbol | Gene name                          | Assay ID          |
|-------------|------------------------------------|-------------------|
| Tph1        | tryptophan hydroxylase 1           | Rn01476867_m1     |
| Tph2        | tryptophan hydroxylase 2           | Rn00598017_m1     |
| Mao-a       | monoamine oxidase A                | Rn01430950_m1     |
| Mao-b       | monoamine oxidase B                | Rn00566203_m1     |
| Pts         | 6-pyruvoyltetrahydropterin synthase| Rn00568123_m1     |
| Spr         | sepiapterin reductase               | Rn01425678_g1     |
| Ddc         | dopa decarboxylase                  | Rn01401189_m1     |
| Aanat       | aralkylamine N-acetyltransferase    | Rn00664873_g1     |
| Asmt        | acetylserotonin O-methyltransferase| Rn00595341_m1     |
| Ido1        | indoleamine 2,3-dioxygenase 1       | Rn01482210_m1     |
| Ido2        | indoleamine 2,3-dioxygenase 2       | Rn01482543_m1     |
| Tdo2        | tryptophan 2,3-dioxygenase          | Rn00574499_m1     |
| Kmo         | kynurenine 3-monoxygenase           | Rn01411937_m1     |
| Kyat1       | kynurenine aminotransferase 1       | Rn01439192_m1     |
| Kynu        | Kynureninase                        | Rn01449532_m1     |
| Haa0        | 3-hydroxyanthranilate 3,4-dioxygenase| Rn01469327_m1     |
| Qprt        | quinolinate phosphoribosyltransferase| Rn01506918_g1     |
| Slc3a2      | solute carrier family 3 member 2    | Rn01759899_g1     |
| Slc6a4      | solute carrier family 6 member 4    | Rn00564737_m1     |
| Slc7a5      | solute carrier family member 5      | Rn00569313_m1     |
| Slc7a8      | solute carrier family 7 member 8    | Rn00584909_m1     |
| Slc22a3     | solute carrier family 22 member 3   | Rn00570264_m1     |

Reference genes

| Gene symbol | Gene name                                                                 | Assay ID          |
|-------------|---------------------------------------------------------------------------|-------------------|
| Ywhaz       | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta| Rn00755072_m1     |
|             |                                                                           | qRnoCIP0050810 (HEX) |
| Gapdh       | glyceraldehyde-3-phosphate dehydrogenase                                  | Rn01775763_g1     |
| Target protein | Product name                        | Host      | Distributor                          | Cat. No.   | Dil.   | Use  |
|----------------|-------------------------------------|-----------|--------------------------------------|------------|--------|------|
| SLC6A4         | Anti-serotonin transporter antibody  | Rabbit    | Abcam, Cambridge, UK                 | Ab181034   | 1:500  | WB   |
| SLC6A4         | Anti-serotonin transporter antibody  | Rabbit    | Thermo Fisher Scientific, Waltham, MA, USA | PA5-50624  | 1:50   | IHC  |
| SL22A3         | Anti-SLC22A3/OCT3                    | Rabbit    | Bioworld Technology, Inc., Bloomington, MN, USA | BS3359    | 1:500  | WB   |
| MAO-A          | Anti-monoamine oxidase               | Rabbit    | Abcam, Cambridge, UK                 | Ab126751   | 1:500  | WB   |
|                |                                     |           |                                      |            | 1:50   | IHC  |
| IDO            | Anti-IDO antibody                    | Rabbit    | LS-Bio, Seattle, WA, USA             | LS-B13596  | 1:500  | WB   |
| IDO            | Anti-IDO antibody                    | Rabbit    | Thermo Fisher Scientific, Waltham, MA, USA | PA5-79437  | 1:50   | IHC  |
| TPH            | Anti-TPH antibody                    | Rabbit    | Thermo Fisher Scientific, Waltham, MA, USA | PAI-777    | 1:100  | WB   |
|                |                                     |           |                                      |            | 1:50   | IHC  |
| Secondary antibody | Anti-rabbit Immunoglobulins/HRP   | Swine     | Dako, Carpinteria, CA, USA           | P0217     | 1:200  | WB   |
| Reference protein |                                      |           |                                      |            |        |      |
| β-actin        | Anti-beta actin antibody             | Mouse     | Abcam, Cambridge, UK                 | Ab8226     | 1:100  | WB   |
| Secondary antibody | Anti-mouse Immunoglobulins/HRP      | Rabbit    | Dako, Carpinteria, CA, USA           | P0260     | 1:200  | WB   |