

# Supplemental Figure 1

| Tissue                 | miRNA Family | Mature miRNA in Dog (cfa) | Mature miRNA in Human (hsa)        | Mature miRNA in Rat (rno)         | Enrichment |
|------------------------|--------------|---------------------------|------------------------------------|-----------------------------------|------------|
| Brain                  | miR-105a     | cfa-miR-105a              | hsa-miR-105-5p                     |                                   | HTE        |
| Brain                  | miR-105b     | cfa-miR-105b              |                                    |                                   | HTE        |
| Brain                  | miR-124      | cfa-miR-124               | hsa-miR-124-3p                     | rno-miR-124-3p                    | HTE        |
| Brain                  | miR-128      | cfa-miR-128               | hsa-miR-128-3p                     | rno-miR-128-3p                    | HTE        |
| Brain                  | miR-132      | cfa-miR-132               | hsa-miR-132-3p                     | rno-miR-132-3p                    | HTE        |
| Brain                  | miR-137      | cfa-miR-137               | hsa-miR-137                        | rno-miR-137-3p                    | HTE        |
| Brain                  | miR-138a     | cfa-miR-138a              | hsa-miR-138-5p                     | rno-miR-138-5p                    | HTE        |
| Brain                  | miR-149      | cfa-miR-149               | hsa-miR-149-5p                     | rno-miR-149-5p                    | HTE        |
| Brain                  | miR-212      | cfa-miR-212               | hsa-miR-212-5p                     | rno-miR-212-5p                    | HTE        |
| Brain                  | miR-219      | cfa-miR-219-3p            | hsa-miR-219a-2-3p_hsa-miR-219b-5p  | rno-miR-219a-2-3p_rno-miR-219b    | HTE        |
| Brain                  | miR-323      | cfa-miR-323               | hsa-miR-323a-3p                    | rno-miR-323-3p                    | HTE        |
| Brain                  | miR-380      | cfa-miR-380               |                                    |                                   | HTE        |
| Brain                  | miR-410      | cfa-miR-410               | hsa-miR-410-3p                     | rno-miR-410-3p                    | HTE        |
| Brain                  | miR-487a     | cfa-miR-487a              | hsa-miR-487a-3p                    |                                   | HTE        |
| Brain                  | miR-487b     | cfa-miR-487b              | hsa-miR-487b-3p                    | rno-miR-487b-3p                   | HTE        |
| Brain                  | miR-874      | cfa-miR-874               | hsa-miR-874-3p                     | rno-miR-874-3p                    | HTE        |
| Brain                  | miR-889      | cfa-miR-889               | hsa-miR-889-3p                     |                                   | HTE        |
| Brain                  | miR-9-5p     | cfa-miR-9                 | hsa-miR-9-5p                       | rno-miR-9a-5p_rno-miR-9b-3p       | HTE        |
| Brain                  | miR-92b      | cfa-miR-92b               | hsa-miR-92b-3p                     | rno-miR-92b-3p                    | HTE        |
| Brain                  | miR-105      |                           | hsa-miR-105-3p                     |                                   | HTE        |
| Brain                  | miR-128      |                           | hsa-miR-128-1-5p                   | rno-miR-128-1-5p                  | HTE        |
| Brain                  | miR-129      |                           | hsa-miR-129-2-3p                   | rno-miR-129-2-3p_rno-miR-129-1-3p | HTE        |
| Brain                  | miR-1298     |                           | hsa-miR-1298-5p                    | rno-miR-1298                      | HTE        |
| Brain                  | miR-132      |                           | hsa-miR-132-5p                     | rno-miR-132-5p                    | HTE        |
| Brain                  | miR-136      |                           | hsa-miR-136-3p                     | rno-miR-136-3p                    | HTE        |
| Brain                  | miR-139      |                           | hsa-miR-139-5p                     | rno-miR-139-5p                    | HTE        |
| Brain                  | miR-212      |                           | hsa-miR-212-3p                     | rno-miR-212-3p                    | HTE        |
| Brain                  | miR-431      |                           | hsa-miR-431-3p                     |                                   | HTE        |
| Brain                  | miR-487a     |                           | hsa-miR-487a-5p                    |                                   | HTE        |
| Brain                  | miR-9a-3p    |                           | hsa-miR-9a-3p                      | rno-miR-9b-5p                     | HTE        |
| Brain, Sciatic Nerve   | miR-1249     | cfa-miR-1249              | hsa-miR-1249-3p                    | rno-miR-1249                      | TE         |
| Brain, Sciatic Nerve   | miR-127      | cfa-miR-127               | hsa-miR-127-3p                     | rno-miR-127-3p                    | TE         |
| Brain, Sciatic Nerve   | miR-184      | cfa-miR-184               | hsa-miR-184                        | rno-miR-184                       | HTE        |
| Brain, Sciatic Nerve   | miR-411      | cfa-miR-411               | hsa-miR-411-5p                     |                                   | TE         |
| Brain, Sciatic Nerve   | miR-432      | cfa-miR-432               | hsa-miR-432-5p                     |                                   | TE         |
| Brain, Sciatic Nerve   | miR-504      | cfa-miR-504               | hsa-miR-504-5p                     |                                   | TE         |
| Brain, Sciatic Nerve   | miR-338      |                           | hsa-miR-338-5p                     | rno-miR-338-5p_rno-miR-3065-3p    | TE         |
| Brain, Sciatic Nerve   | miR-382      |                           | hsa-miR-382-5p                     | rno-miR-382-5p                    | TE         |
| Brain, Sciatic Nerve   | miR-411      |                           | hsa-miR-411-3p                     | rno-miR-411-3p                    | TE         |
| Brain, Sciatic Nerve   | miR-744      |                           | hsa-miR-744-5p                     |                                   | TE         |
| Brain, Testis          | miR-146b     | cfa-miR-146b              | hsa-miR-146b-5p                    | rno-miR-146b-5p                   | TE         |
| Brain, Testis          | miR-335      | cfa-miR-335               | hsa-miR-335-5p                     | rno-miR-335                       | TE         |
| Brain, Testis          | miR-335      |                           | hsa-miR-335-3p                     |                                   | TE         |
| Brain, Testis          | miR-873      |                           | hsa-miR-873-5p                     | rno-miR-873-5p                    | TE         |
| Brain, Jejunum         | miR-342      | cfa-miR-342               | hsa-miR-342-3p                     | rno-miR-342-3p                    | TE         |
| Brain, Liver           | miR-885      | cfa-miR-885               | hsa-miR-885-5p                     |                                   | TE         |
| Brain, Pancreas        | miR-135a     | cfa-miR-135a-5p           | hsa-miR-135a-5p                    | rno-miR-135a-5p                   | TE         |
| Brain, Pancreas        | miR-153      | cfa-miR-153               | hsa-miR-153-3p                     |                                   | TE         |
| Bone Marrow            | miR-8865     | cfa-miR-8865              |                                    |                                   | HTE        |
| Bone Marrow, Brain     | miR-129      | cfa-miR-129               | hsa-miR-129-5p                     | rno-miR-129-5p                    | TE         |
| Bone Marrow, Brain     | miR-628      | cfa-miR-628               | hsa-miR-628-5p                     |                                   | TE         |
| Bone Marrow, Brain     | miR-7        | cfa-miR-7                 | hsa-miR-3529-3p                    | rno-miR-7a-5p                     | HTE        |
| Bone Marrow, Brain     | miR-129-1    |                           | hsa-miR-129-1-3p                   | rno-miR-129-1-3p                  | TE         |
| Bone Marrow, Jejunum   | miR-374b     | cfa-miR-374b              | hsa-miR-374b-5p_hsa-miR-374c-3p    | rno-miR-374-5p_rev                | TE         |
| Bone Marrow, Plasma    | miR-144      | cfa-miR-144               | hsa-miR-144-3p                     | rno-miR-144-3p                    | TE         |
| Bone Marrow, Plasma    | miR-25       | cfa-miR-25                | hsa-miR-25-3p                      | rno-miR-25-3p                     | TE         |
| Bone Marrow, Plasma    | miR-451      | cfa-miR-451               | hsa-miR-451a                       | rno-miR-451-5p                    | TE         |
| Bone Marrow, Plasma    | miR-144      |                           | hsa-miR-144-5p                     | rno-miR-144-5p                    | HTE        |
| Bone Marrow, Testis    | miR-450a     | cfa-miR-450a              | hsa-miR-450a-5p                    | rno-miR-450b-5p                   | TE         |
| Bone Marrow, Testis    | miR-450b     | cfa-miR-450b              | hsa-miR-450b-5p                    |                                   | TE         |
| Colon, Ileum           | miR-147      | cfa-miR-147               | hsa-miR-147b                       | rno-miR-147                       | TE         |
| Heart                  | miR-499      | cfa-miR-499               | hsa-miR-499a-5p                    | rno-miR-499-5p                    | HTE        |
| Heart, Striated Muscle | miR-1        | cfa-miR-1                 | hsa-miR-1-3p                       | rno-miR-1b                        | TE         |
| Heart, Striated Muscle | miR-133a     | cfa-miR-133a              | hsa-miR-133a-3p                    | rno-miR-133c_rno-miR-133a-3p      | HTE        |
| Heart, Striated Muscle | miR-133b     | cfa-miR-133b              | hsa-miR-133b                       | rno-miR-133b-3p                   | TE         |
| Heart, Striated Muscle | miR-208b     | cfa-miR-208b              | hsa-miR-208b-3p                    | rno-miR-208b-3p                   | TE         |
| Heart, Striated Muscle | miR-133a     |                           | hsa-miR-133a-5p                    | rno-miR-133a-5p                   | HTE        |
| Ileum, Jejunum         | miR-215      | cfa-miR-215               |                                    |                                   | TE         |
| Liver                  | miR-122      | cfa-miR-122               | hsa-miR-122-5p_hsa-miR-3591-3p     | rno-miR-122-5p_rno-miR-3591-3p    | HTE        |
| Liver                  | miR-3591     |                           | hsa-miR-122-3p_hsa-miR-3591-5p     |                                   | HTE        |
| Liver, Pancreas        | miR-148a-5p  |                           | hsa-miR-148a-5p                    |                                   | TE         |
| Pancreas               | miR-148a-3p  | cfa-miR-148a              | hsa-miR-148a-3p                    | rno-miR-148a-3p                   | HTE        |
| Pancreas               | miR-216a     | cfa-miR-216a              | hsa-miR-216a-5p                    | rno-miR-216a-5p                   | HTE        |
| Pancreas               | miR-216b     | cfa-miR-216b              | hsa-miR-216b-5p                    | rno-miR-216b-5p                   | HTE        |
| Pancreas               | miR-217      | cfa-miR-217               | hsa-miR-217                        |                                   | HTE        |
| Pancreas               | miR-375      | cfa-miR-375               | hsa-miR-375                        | rno-miR-375-3p                    | HTE        |
| Pancreas               | miR-216a     |                           |                                    | rno-miR-216a-3p                   | HTE        |
| Pancreas               | miR-217      |                           |                                    | rno-miR-217-3p                    | HTE        |
| Pancreas, Jejunum      | miR-141      | cfa-miR-141               | hsa-miR-141-3p                     | rno-miR-141-3p                    | TE         |
| Pancreas, Jejunum      | miR-802      | cfa-miR-802               | hsa-miR-802                        | rno-miR-802-5p                    | TE         |
| Plasma                 | miR-423a     | cfa-miR-423a              | hsa-miR-423-5p_rev_hsa-miR-3184-3p | rno-miR-423-5p                    | HTE        |
| Plasma                 | miR-16       |                           |                                    | rno-miR-16-3p                     | HTE        |
| Plasma, Brain          | miR-107      | cfa-miR-107               | hsa-miR-107                        | rno-miR-107-3p                    | TE         |
| Plasma, Brain          | miR-383      | cfa-miR-383               | hsa-miR-383-5p                     |                                   | TE         |
| Plasma, Brain          | miR-331      |                           | hsa-miR-331-5p                     |                                   | TE         |
| Plasma, Ileum          | miR-15a      | cfa-miR-15a               | hsa-miR-15a-5p                     | rno-miR-15a-5p                    | TE         |
| Sciatic Nerve, Thymus  | miR-193a     | cfa-miR-193a              | hsa-miR-193a-5p                    |                                   | TE         |
| Striated Muscle        | miR-206      | cfa-miR-206               | hsa-miR-206                        | rno-miR-206-3p                    | HTE        |
| Testis                 | miR-202      | cfa-miR-202               | hsa-miR-202-5p                     | rno-miR-202-5p                    | HTE        |
| Testis                 | miR-34b      | cfa-miR-34b               |                                    | rno-miR-34b-5p                    | HTE        |
| Testis                 | miR-34c      | cfa-miR-34c               | hsa-miR-34c-5p                     | rno-miR-34c-5p                    | HTE        |
| Testis                 | miR-449a     | cfa-miR-449a              | hsa-miR-449a                       | rno-miR-449a-5p                   | HTE        |
| Testis                 | miR-506      | cfa-miR-506               |                                    |                                   | HTE        |
| Testis                 | miR-507b     | cfa-miR-507b              |                                    |                                   | HTE        |
| Testis                 | miR-508a     | cfa-miR-508a              |                                    |                                   | HTE        |
| Testis                 | miR-508b     | cfa-miR-508b              |                                    |                                   | HTE        |
| Testis                 | miR-8831     | cfa-miR-8831              |                                    |                                   | HTE        |
| Testis                 | miR-8908a-3p | cfa-miR-8908a-3p          |                                    |                                   | HTE        |
| Testis                 | miR-8908a-5p | cfa-miR-8908a-5p          |                                    |                                   | HTE        |
| Testis                 | miR-8908b    | cfa-miR-8908b             |                                    |                                   | HTE        |
| Testis                 | miR-8908c    | cfa-miR-8908c             |                                    |                                   | HTE        |
| Testis                 | miR-34b      |                           | hsa-miR-34b-3p                     | rno-miR-34b-3p                    | HTE        |
| Testis                 | miR-34c      |                           | hsa-miR-34c-3p                     |                                   | HTE        |
| Testis                 | miR-449b     |                           | hsa-miR-449b-5p                    |                                   | HTE        |
| Testis, Thymus         | miR-106a     | cfa-miR-106a              | hsa-miR-106a-5p                    |                                   | TE         |
| Testis, Thymus         | miR-205      | cfa-miR-205               | hsa-miR-205-5p                     | rno-miR-205                       | HTE        |