**Supplementary Table 1.** 24 differenthuman miRNAs screened and listed according to expected functional regulation.

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| --- | --- | --- | --- | --- |
| **Functional regulation** | **miRNA** | **Assay name** | **Assay ID** | **Reference** |
| Skeletal and hearth muscle | 1-3p | hsa-miR-1-3p | 477820\_mir | Siracusa J, et al., 2018; Domanska-Senderowska D et al., 2019 |
| 20a-5p | hsa-miR-20a-5p | 478568\_mir | Baggish AL, et al., 2011; Aoi, W, et al., 2013 |
| 21-5p | hsa-miR-21-5p\* | 477975\_mir | Baggish AL, et al., 2011; Wardle SL, et al., 2015 |
| 29b-3p | hsa-miR-29b-3p | 478369\_mir | Nielsen S, et al. 2014 |
| 124-3p | hsa-miR-124-3p | 477879\_mir | McCarty JJ, 2011 |
| 133a-3p | hsa-miR-133a-3p | 478511\_mir | Nielsen S, et al. 2014; Siracusa J, et al., 2018  |
| 133b-3p | hsa-miR-133b-3p | 480871\_mir | Sawada S, et al., 2013; Domanska-Senderowska D et al., 2019 |
| 206-3p | hsa-miR-206-3p | 477968\_mir | Xu T, et al., 2015; Siracusa J et al., 2018 |
| 208a-3p | hsa-miR-208a-3p | 477819\_mir | Siracusa J, et al., 2018 |
| 208b-3p | hsa-miR-208b-3p | 477806\_mir | Siracusa J, et al., 2018 |
| 486-3p | hsa-miR-486-3p | 478422\_mir | Aoi, W, et al., 2013 |
| 486-5p | hsa-miR-486-5p | 476128\_mir | Siracusa J, et al., 2018 |
| Hypoxia and angiogenesis | 20a-5p | hsa-miR-20a-5p | 478568\_mir | Baggish AL, et al., 2011 |
| 126-3p | hsa-miR-126-3p | 477887\_mir | Baggish AL, et al., 2011 |
| 146a-5p | hsa-miR-146a-5p | 478399\_mir | Aoi, W, et al., 2013 |
| 210-3p | hsa-miR-210-3p | 477970\_mir | Gao, J et al. 2023 |
| 221-3p | hsa-miR-221-3p | 477981\_mir | Wardle SL, et al., 2015;Liu X, et al., 2009 |
| 222-3p | hsa-miR-222-3p | 477982\_mir | Baggish AL, et al., 2011;Liu X, et al., 2009 |
| Metabolic | 23a-3p | hsa-miR-23a-3p | 478532\_mir | Ceccarelli G, et al, 2017 |
| 122-5p | hsa-miR-122-5p | 477879\_mir | Lou J, et al., 2022 |
| 140-5p | hsa-miR-140-5p | 477909\_mir | Mayr B et al., 2018 |
| 181a-5p | hsa-miR-181-5p | 477857\_mir | Aoi W, et al., 2014;Russel AP, et al. 2013 |
| Inflammation | 21-5p | hsa-miR-21-5p\* | 477975\_mir | Baggish AL, et al., 2011 |
| Somatic | 16-5p | hsa-miR-16-5p | 477860\_mir | Cui SF, et al, 2015 |
| 122-3p | hsa-miR-122-3p | 477874\_mir | Cui SF, et al, 2015 |
| 149-5p | hsa-miR-149-5p | 477917\_mir | Sawada S et al, 2013 |

**\***hsa**-**miR 21-5p is listed as both a myomiR and involved in inflammation.

\*hsa**-**miR 20a-5p is listed as both a myomiR and involved in hypoxia and angiogenesis.