**Supplementary Table 1 List of miRNAs interacting with Hh signaling in other models.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **miRNA(s)** | **Interaction with Hh** | **Target gene(s)** | **Sample type(s)** | **Ref.(s)** |
| **miRNAs regulating Hh signaling** |
| miR-5 | Hh-downregulating | Smo | Drosophila | [1] |
| miR-7 | Hh-downregulating | aihog | Drosophila eye | [2] |
| miR-14 | Hh-downregulating | Hh, Ptc, Smo | Drosophila | [3] |
| miR-15/16 | Hh-downregulating | IHH, USP9X | Prostate cancer metastasis | [4] |
| miR-30 family | Hh-downregulating | Smo | Zebrafish embryo | [5] |
| bmmu-miR-30a, mmu-miR-141, chsa-miR-193b | Hh-downregulating | Smo | Mouse and human T-cell lymphoblastic lymphoma | [6] |
| miR-125b, miR-324-5p, miR-326 | Hh-downregulating | Smo, Gli1(miR-324-5p only) | Human medulloblastoma cell | [7] |
| miR-137 | Hh (Shh)-downregulating | RTVP-1 | Human glioblastoma cancer stem cell | [8] |
| miR-181 family | Hh-downregulating | eCDON | Human neuroblastoma | [9] |
| miR-196 | Hh (Shh)-downregulating | Hoxb8 | Chick embryo | [10] |
| miR-210 | Hh-downregulating | Shh | Mouse embryo/Embryonic stem cell | [11] |
| miR-218 | Hh-downregulating | SMO | Human gastric adenocarcinoma cell | [12] |
| miR-302-367 cluster | Hh-downregulating | CXCR4 | Human glioma initiating cell | [13] |
| ddme-miR-310 cluster (miR-25/92a/92b in human) | Hh-downregulating | Rab23, DHR96, Ttk | Fly ovary | [14] |
| miR-326 | Hh (Shh)-induced, Hh-downregulating (negative feedback) | Smo, Gli2 | Mouse embryonic lung mesenchymal cell | [15] |
| miR-326 | Hh-downregulating | SMO | Human glioma cell, mouse glioma | [16] |
| miR-602/608 | Hh-downregulating | SHH | Human OA chondrocyte | [17] |
| miR-932 | Hh-downregulating | fBoi | Drosophila | [18] |
| miR-960 | Hh-downregulating | Smo, Cos2, Fu | Drosophila | [19] |
| miR-1 | Hh (Ihh)-upregulating | HDAC4 | Primary chichken embryonic chondrocyte | [20] |
| miR-9 | Hh-upregulating | PTCH1 | Human glioblastoma cell | [21] |
| miR-31, miR-155 | Hh-upregulating | PP2A | Mouse primary macrophage | [22] |
| miR-106b | Hh (Gli2)-upregulating | - | Cerebellum granule cell | [23] |
| miR-146a | Hh-upregulating | Numb | Mouse colitis model of intestinal inflammation/Primary mouse macrophage | [24] |
| miR-202-3p | #Hh-upregulating | gSufu | Primary chronic lymphocytic leukemia cell | [25] |
| miR-212 | #Hh-upregulating | PTCH1 | Human non-small cell lung cancer cell, human pancreatic ductal adenocarcinoma | [26,27] |
| miR-214 | Allowing nuclear trafficking of both hGliA and iGliR | Sufu | Zebrafish embryo | [28,29] |
| miR-365 | Hh (Ihh)-upregulating | HDAC4 | Primary chicken chondrocyte/Embryonic chicken sterna and tibia growth plate | [30] |
| miR-452 | Positively regulating Hh signaling | Wnt5a | First pharyngeal arch in mouse embryo/Neural crest stem cell | [31] |
| miR-873 | Hh-upregulating | ZIC2 | Human neuroblastoma cell | [32] |
| **miRNAs regulated by Hh signaling** |
| Let7a | Hh-downregulated (upregulated by jErismodegib) | KRAS | Human pancreatic cancer stem cell | [33] |
| miR-29b-1/29a | Transcriptionally suppressed by Hh (Gli) | - | Human cholangiocarcinoma cell | [34] |
| miR-128 | Hh-downregulated | Bmi1 | Human prostate cancer stem cell | [35] |
| miR-148a/b | #Hh-downregulated | - | Human umbilical cord blood-derived mesenchymal stem cell | [36] |
| miR-183∼96∼182 | Negative relationship | - | Human medulloblastoma | [37] |
| miR-199b-5p | Hh (Shh)-downregulated | Hes1, CD15 | Human medulloblastoma cell | [38] |
| miR-200 family | Hh (Shh)-downregulated | ZEB1, ZEB2 | Mouse embryonic stem cell | [39] |
| miR-200b, let-7c | Hh-downregulated | - | Human non-small cell lung cancer cell | [40] |
| miR-203 | Hh-downregulated | c-JUN | Mouse and human basal cell carcinoma/Primary human keratinocyte | [41] |
| miR-206 | Hh-downregulated | BDNF | Mouse embryonic lung | [42] |
| miR-223-3p, miR-197-3p, miR-342-3p, miR-505-3p, miR-204-5p, miR-941, miR-145-5p, miR-301b-3p, miR-452-5p, miR-191-5p | Hh-downregulated (upregulated by oral kVismodegib therapy) | - | Human basal cell carcinoma | [43] |
| miR-17-92 cluster | Hh (Shh)-upregulated | #Pten, Bmpr2 | Mouse neural progenitor cell, mouse and human medulloblastoma, primary cerebellar neural precursor cell, mouse cerebellum | [44-48] |
| miR-21↑, miR-128↓, miR-200↓ | Hh-regulated | PdCD4 (miR-21), Bmi1 (miR-128), #N-cad, Snail, Slug, Zeb1 (miR-200) | Glioblastoma initiating cell | [49] |
| miR-25 | #Hh-upregulated | DR4 | Human cholangiocarcinoma | [50] |
| miR-26a/b | Hh (Ihh-Gli1)-upregulated | Hgf | Primary mouse prostate stromal cell | [51] |
| miR-31, miR-150 | Hh-induced | Myd88 | Mycobacterial infected mouse (*Mycobacterium bovis* BCG) | [52] |
| miR-154 cluster | Hh (Ptch)-regulated | - | Mouse medulloblastoma | [53] |
| miR-183~96~182 cluster | Synergistic collaboration | - | Mouse medulloblastoma | [54] |

aihog, interference hedgehog; bmmu, mus musculus; chsa, homo sapiens; ddme, Drosophila melanogaster; eCDON, a receptor of Shh; fBoi, brother of ihog; gSufu, a negative regulator of Hh signaling; hGliA, activator form of Gli; iGliR, repressor form of Gli; jErismodegib, Smo antagonist (NVP-LDE225); kVismodegib, Smo antagonist (GDC-0449); #These indicates indirect evidences.

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