Table S1. miRNA-disease network.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Disease** | **Degree** | **Betweenness** | **miR-22-3p** | **miR-133a-3p** | **miR-146a-5p** | **miR-369-3p** | **Let-7b-5p** |
| **Carcinoma, Hepatocellular** | 5 | 421.5268 | + | + | + | + | + |
| **Colorectal Carcinoma** | 5 | 421.5268 | + | + | + | + | + |
| **Leukemia, Myeloid, Acute** | 4 | 171.2146 | + | - | + | + | + |
| **Breast cancer** | 4 | 171.2146 | + | - | + | + | + |
| **Cardiovascular Diseases [unspecific]** | 4 | 375.0937 | + | + | + | - | + |
| **Muscular disorder** | 4 | 171.2146 | + | - | + | + | + |
| **Pancreatic cancer** | 4 | 171.2146 | + | - | + | + | + |
| **Prostate cancer** | 4 | 171.2146 | + | - | + | + | + |
| **Lung Neoplasms** | 4 | 375.0937 | + | + | + | \_ | + |
| **Pancreatic Neoplasms** | 4 | 375.0937 | + | + | + | - | + |
| **Carcinoma, Renal Cell** | 4 | 375.0937 | + | + | + | - | + |
| **Prostate Neoplasms** | 4 | 375.0937 | + | + | + | - | + |
| **Myocardial Infarction** | 4 | 375.0937 | + | + | + | - | + |
| **Ovarian Neoplasms** | 4 | 375.0937 | + | + | + | - | + |
| **Gastric Neoplasms** | 4 | 375.0937 | + | + | + | - | + |
| **Heart Failure** | 4 | 375.0937 | + | + | + | - | + |
| **Carcinoma, Lung, Non-Small-Cell** | 4 | 375.0937 | + | + | + | - | + |
| **Breast Neoplasms** | 4 | 375.0937 | + | + | + | - | + |
| **Atherosclerosis** | 4 | 375.0937 | + | + | + | - | + |
| **Hypertension** | 4 | 375.0937 | + | + | + | - | + |
| **Asthma** | 4 | 375.0937 | + | + | + | - | + |
| **Colon Neoplasms** | 4 | 375.0937 | + | + | + | - | + |
| **Inflammation** | 4 | 375.0937 | + | + | + | - | + |
| **Leukemia, Lymphoblastic, Acute** | 3 | 139.3231 | + | + | - | - | + |
| **Cardiomyopathy, Dilated** | 3 | 131.8566 | + | + | - | - | + |
| **Colorectal cancer** | 3 | 139.3231 | + | - | + | - | + |
| **Hematological disease** | 3 | 139.3231 | + | - | + | - | + |
| **hepatocellular carcinoma** | 3 | 139.3231 | + | - | + | - | + |
| **Leukemia, chronic lymphatic** | 3 | 139.3231 | + | - | + | - | + |
| **Lung cancer** | 3 | 139.3231 | + | - | + | - | + |
| **Medulloblastoma** | 3 | 139.3231 | + | + | - | - | + |
| **Melanoma and neural system tumor syndrome** | 3 | 38.37491 | + | - | + | + | + |
| **Multiple Myeloma** | 3 | 139.3231 | + | - | + | - | + |
| **Ovarian cancer** | 3 | 139.3231 | + | - | + | - | + |
| **Carcinoma, Thyroid, Papillary** | 3 | 91.2148 | - | - | + | + | + |
| **Squamous Cell Carcinoma, Head and Neck** | 3 | 139.3231 | + | - | + | - | + |
| **Stroke** | 3 | 139.3231 | + | - | + | - | + |
| **Alzheimer Disease** | 3 | 139.3231 | + | - | + | - | + |
| **Muscular Dystrophy, Duchenne** | 3 | 55.65512 | + | - | + | + | - |
| **Leukemia, Myeloid, Chronic** | 3 | 73.51632 | + | - | + | + | - |
| **Psoriasis** | 3 | 73.51632 | + | - | + | + | - |
| **Squamous Cell Carcinoma, Oral** | 3 | 215.7641 | + | + | + | - | - |
| **Vascular Disease [unspecific]** | 3 | 139.3231 | + | - | + | - | + |
| **Sepsis** | 3 | 215.7641 | + | + | + | - | - |
| **Diabetes Mellitus, Type 2** | 3 | 215.7641 | + | + | + | - | - |
| **Preeclampsia** | 3 | 139.3231 | + | - | + | - | + |
| **Ischemia-Reperfusion Injury** | 3 | 263.2435 | - | + | + | - | + |
| **Coronary Artery Disease** | 3 | 215.7641 | + | + | + | - | - |
| **Amyotrophic Lateral Sclerosis** | 3 | 139.3231 | + | - | + | - | + |
| **Graves Disease** | 3 | 139.3231 | + | - | + | - | + |
| **Pulmonary Hypertension** | 3 | 139.3231 | + | - | + | - | + |
| **Thyroid Neoplasms** | 3 | 139.3231 | + | - | + | - | + |
| **Melanoma** | 3 | 139.3231 | + | - | + | - | + |
| **Multiple Sclerosis** | 3 | 73.51632 | + | - | + | + | - |
| **Myelodysplastic Syndromes** | 3 | 139.3231 | + | - | + | - | + |
| **Liver Neoplasms** | 3 | 139.3231 | + | - | + | - | + |
| **Carcinoma, Colon** | 3 | 263.2435 | - | + | + | - | + |
| **Esophageal Neoplasms** | 3 | 139.3231 | + | + | + | - | - |
| **Glioblastoma** | 3 | 139.3231 | + | - | + | - | + |
| **Neoplasms [unspecific]** | 3 | 139.3231 | + | - | + | - | + |
| **Head And Neck Neoplasms** | 3 | 263.2435 | - | + | + | - | + |
| **Carcinoma, Cervical** | 3 | 215.7641 | + | + | + | - | - |
| **Carcinoma, Endometrial** | 3 | 55.65512 | + | + | - | + | - |
| **Carcinoma, Prostate** | 3 | 139.3231 | + | - | + | - | + |
| **Carcinoma, Adrenocortical** | 2 | 63.95487 | - | - | + | - | + |
| **Lymphoma, Burkitt** | 2 | 63.95487 | - | - | + | - | + |
| **Cancer** | 2 | 63.95487 | - | - | + | - | + |
| **Cardiac hypertrophy** | 2 | 63.95487 | - | - | + | - | + |
| **Cervical cancer, somatic** | 2 | 63.95487 | - | - | + | - | + |
| **Muscular Dystrophy, Facioscapulohumeral** | 2 | 69.81319 | - | + | - | - | + |
| **Miyoshi myopathy** | 2 | 63.95487 | - | - | + | - | + |
| **Muscular dystrophy, limb-girdle, type 2A** | 2 | 63.95487 | - | - | + | - | + |
| **Myopathy, nemaline, 3** | 2 | 8.18189 | - | - | - | + | + |
| **Neuroblastoma** | 2 | 63.95487 | - | - | + | - | + |
| **Neurodegeneration** | 2 | 63.95487 | - | - | + | - | + |
| **Parkinson Disease** | 2 | 25.56149 | + | - | - | - | + |
| **Uveal Melanoma** | 2 | 63.95487 | - | - | + | - | + |
| **Intrahepatic Cholangiocarcinoma** | 2 | 49.80675 | + | - | + | - | - |
| **Leukemia/lymphoma, chronic B-cell** | 2 | 49.80675 | + | - | + | - | - |
| **Melanoma, cutaneous malignant, 2** | 2 | 49.80675 | + | - | + | - | - |
| **Rhabdomyosarcoma** | 2 | 36.48195 | + | + | - | - | - |
| **Adenocarcinoma, Pancreatic Ductal** | 2 | 129.4754 | - | + | + | - | - |
| **Rheumatoid Arthritis** | 2 | 49.80675 | + | - | + | - | - |
| **Leukemia, Lymphocytic, Chronic, B-Cell** | 2 | 49.80675 | + | - | + | - | - |
| **Leukemia-Lymphoma, Precursor T-Cell Lymphoblastic** | 2 | 63.95487 | - | - | + | - | + |
| **Endometriosis** | 2 | 25.56149 | + | - | - | - | + |
| **Diabetes Mellitus** | 2 | 129.4754 | - | + | + | - | - |
| **Crohn Disease** | 2 | 63.95487 | - | - | + | - | + |
| **Stroke, Ischemic** | 2 | 63.95487 | - | - | + | - | + |
| **Squamous Cell Carcinoma, Esophageal** | 2 | 129.4754 | - | + | + | - | - |
| **Systemic Lupus Erythematosus** | 2 | 49.80675 | + | - | + | - | - |
| **Muscle Atrophy** | 2 | 49.80675 | + | - | + | - | - |
| **Leukemia** | 2 | 63.95487 | - | - | + | - | + |
| **Hepatitis C Virus Infection** | 2 | 63.95487 | - | - | + | - | + |
| **Aortic Stenosis** | 2 | 36.48195 | + | + | - | - | - |
| **Hepatitis B Virus Infection** | 2 | 49.80675 | + | - | + | - | - |
| **Carcinoma, Urothelial, Upper Tract** | 2 | 25.56149 | + | - | - | - | + |
| **Epilepsy** | 2 | 63.95487 | - | - | + | - | + |
| **Chronic Kidney Disease** | 2 | 129.4754 | - | + | + | - | - |
| **Hirschsprung Disease** | 2 | 19.07804 | - | - | + | + | - |
| **Carcinoma, Pancreatic** | 2 | 36.48195 | + | + | - | - | - |
| **Ischemic Heart Disease** | 2 | 129.4754 | - | + | + | - | - |
| **Acute Coronary Syndrome** | 2 | 129.4754 | - | + | + | - | - |
| **Periodontitis** | 2 | 63.95487 | - | - | + | - | + |
| **Obesity** | 2 | 63.95487 | - | - | + | - | + |
| **Neurodegenerative Diseases [unspecific]** | 2 | 63.95487 | - | - | + | - | + |
| **Cholangiocarcinoma** | 2 | 49.80675 | + | - | + | - | - |
| **Nasopharyngeal Neoplasms** | 2 | 63.95487 | - | - | + | - | + |
| **Digestive System Neoplasms** | 2 | 63.95487 | - | - | + | - | + |
| **Lymphoma, B-Cell** | 2 | 49.80675 | + | - | + | - | - |
| **Endometrial Neoplasms** | 2 | 63.95487 | - | - | + | - | + |
| **Intracranial Aneurysm** | 2 | 129.4754 | - | + | + | - | - |
| **Kidney Diseases [unspecific]** | 2 | 129.4754 | - | + | + | - | - |
| **Carotid Atherosclerosis** | 2 | 129.4754 | - | + | + | - | - |
| **Carcinoma, Oral** | 2 | 63.95487 | - | - | + | - | + |
| **Carcinoma, Ovarian** | 2 | 49.80675 | + | - | + | - | - |
| **Kaposi Sarcoma** | 2 | 63.95487 | - | - | + | - | + |
| **Macular Degeneration** | 2 | 63.95487 | - | - | + | - | + |
| **Bladder Neoplasms** | 2 | 129.4754 | - | + | + | - | - |
| **Carcinoma, Breast** | 2 | 129.4754 | - | + | + | - | - |
| **Hypertrophy** | 2 | 69.81319 | - | + | - | - | + |
| **Myocardial Ischemic-Reperfusion Injury** | 2 | 63.95487 | - | - | + | - | + |
| **Glioma** | 2 | 69.81319 | - | + | - | - | + |
| **Liver Cirrhosis** | 2 | 49.80675 | + | - | + | - | - |
| **Lymphoma** | 2 | 49.80675 | + | - | + | - | - |
| **Arteriosclerosis Obliterans** | 2 | 36.48195 | + | + | - | - | - |
| **Prion Diseases** | 2 | 63.95487 | - | - | + | - | + |
| **Influenza** | 2 | 63.95487 | - | - | + | - | + |
| **Chronic Inflammation** | 2 | 63.95487 | - | - | + | - | + |
| **Allergy** | 2 | 49.80675 | + | - | + | - | - |
| **Adenocarcinoma, Lung** | 2 | 63.95487 | - | - | + | - | + |
| **Carcinoma, Gastric** | 2 | 36.48195 | + | + | - | - | - |
| **Inflammatory Bowel Diseases** | 2 | 129.4754 | - | + | + | - | - |
| **Atrial Fibrillation** | 2 | 129.4754 | - | + | + | - | - |
| **Cardiac Myocyte Injury** | 2 | 129.4754 | - | + | + | - | - |
| **Huntington Disease** | 2 | 49.80675 | + | - | + | - | - |
| **Osteosarcoma** | 2 | 36.48195 | + | + | - | - | - |
| **Astrocytoma** | 2 | 49.80675 | + | - | + | - | - |
| **Carcinoma, Renal Cell, Clear-Cell** | 2 | 63.95487 | - | - | + | - | + |