**S2 Table. Functions of the 21 miRNAs selected for further analysis based on a literature search as explained in Methods paragraph.**

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| --- | --- |
| **MiRNA** | **Brief description of function** |
| miR-19a-3p | negative regulator of Wnt pathway ([15](#_ENREF_15)) |
| miR-24-3p | osteogenic regulator([16](#_ENREF_16))  |
| miR-27a-3p | inhibition by osteoblastogenic factor Runx2 ([17](#_ENREF_17)), promoter of osteoblast differentiation ([18](#_ENREF_18)) |
| miR-29a-3p | inhibitor of Wnt pathway ([35](#_ENREF_35)), inhibition by osteogenic factor TGF-β ([36](#_ENREF_36)), biomarker of disease activity in AS ([32](#_ENREF_32)) |
| miR-99b-5p | promoter of osteoclast differentiation ([30](#_ENREF_30)) |
| miR-106a-5p | inhibitor of osteogenesis ([19](#_ENREF_19)), inhibitor of IL-8 ([20](#_ENREF_20)) |
| miR-133a-3p | proliferation and differentiation of myoblasts ([39](#_ENREF_39)) |
| miR-140-3p | inhibitor of cartilage degradation ([26](#_ENREF_26)),inhibitor of autoimmune arthritis ([27](#_ENREF_27)) |
| miR-145-5p | inhibitor of osteoblast differentiation ([31](#_ENREF_31)) |
| miR-146a-5p | inhibitor of osteoclastogenesis ([28](#_ENREF_28)), negative regulator of inflammation ([40](#_ENREF_40)), polymorphisms are a potential pathogenic factor for AS ([29](#_ENREF_29)) |
| miR-146b-5p | promoter of cell migration and invasion ([41](#_ENREF_41)) |
| miR-151a-3p | promoter of cell migration ([42](#_ENREF_42)) |
| miR-181a-5p | biomarker of inflammatory response, promoter osteoblast differentiation ([43](#_ENREF_43)) |
| miR-221-3p | overexpression in T cells of AS patients - immunopathogenesis of AS? ([44](#_ENREF_44)) |
| miR-222-3p | inhibitor of osteoblast differentiation ([37](#_ENREF_37)), regulation MMP-13 ([38](#_ENREF_38)) |
| miR-223-3p | inhibitor of osteoblast differentiation([22](#_ENREF_22)), promoter of osteoclastogenesis ([23](#_ENREF_23)) |
| miR-374a-5p | activator of Wnt pathway ([25](#_ENREF_25)) |
| miR-375 | inhibitor of osteogenesis ([45](#_ENREF_45)) |
| miR-409-3p | inhibitor of proliferation, vascularization and metastasis ([46](#_ENREF_46)) |
| miR-625-3p | diagnostic biomarker for mesothelioma ([47](#_ENREF_47)), marker of treatment response ([48](#_ENREF_48)) |
| miR-885-5p | predictor of knee or hip osteoarthritis ([49](#_ENREF_49)) |

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