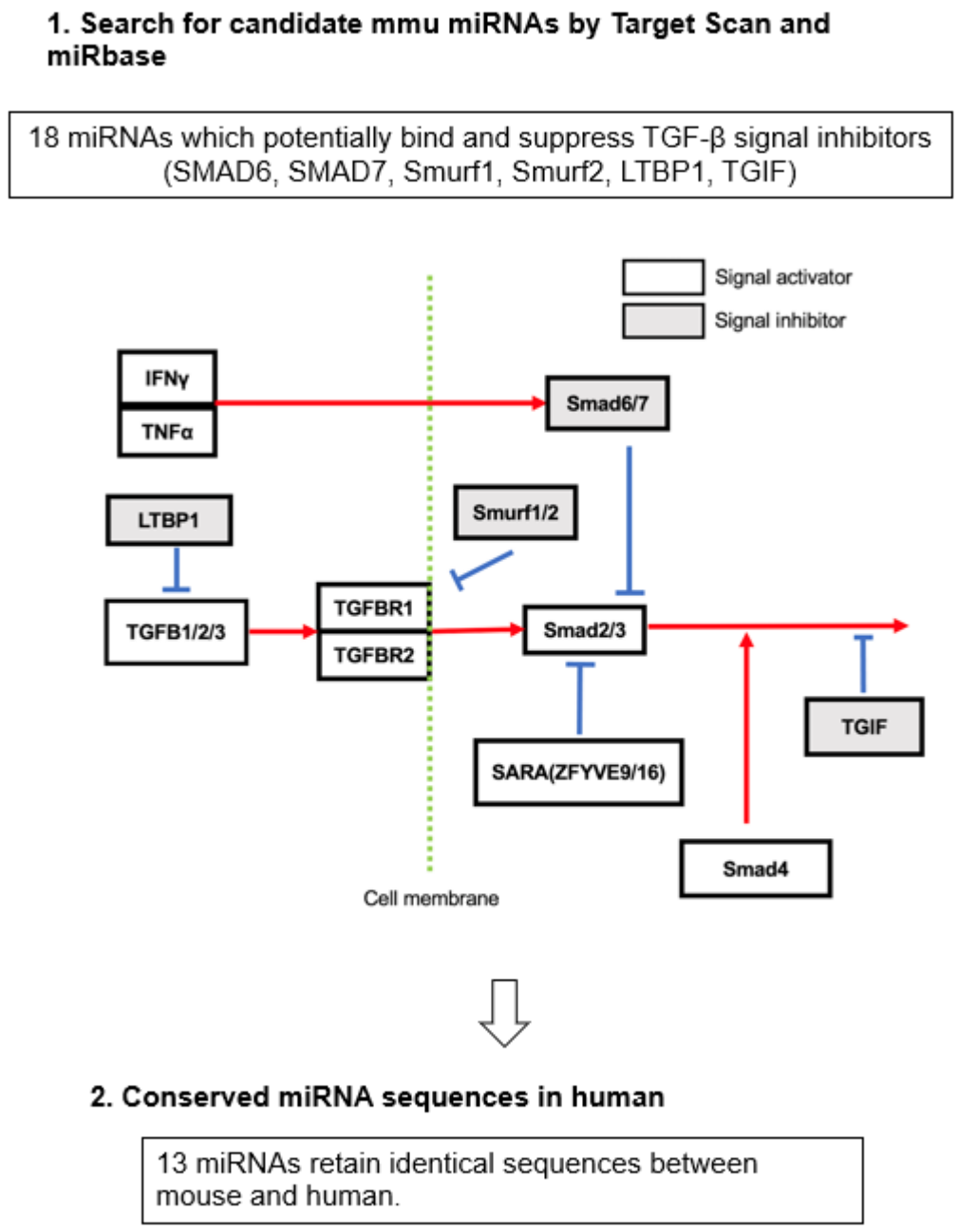
Figure S1. Screening for candidate miRNAs by SBE reporter assays.
1. Through database survey, we picked up 18 miRNA candidates which potentially bind to and suppress the TGF-β signal inhibitors, Smad 7, Smad 6, Smurf1, Smurf 2, TGIF, and LTBP1. **2**. They were then narrowed to 13 miRNAs with respect to identity of miRNAs between mouse and human species for the ultimate purpose of clinical application. **3**. Using HEK293 cells we measured SBE activity which reflects TGF-β/Smad signal pathway through two round reporter assays; the first reporter assay was performed using a HEK293 where SBE reporter plasmid was initially transduced. **4**. In the second reporter assay, we employed a dual luciferase assay system in which SBE activity is normalized by expression of co-transfected Renilla luciferase vector, thus providing more accurate data. Among them, 3 miRNAs (miR-497a-5p, -195a-5p, -186-5p) were eventually selected as the key factors which activated the TGF β/Smad signal pathway.



3. 1st - round screening: 9 miRNAs were selected

HEK293 cells used, where SMAD binding element (SBE) reporter plasmid is initially transduced(BPS Bioscience, Cat. No. 60653).

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4. 2nd - round screening: 3 miRNAs remained.

HEK293 was transfected by SBE reporter ((BPS Bioscience, Cat. No. 60654) together with Renilla luciferase vector for normalization of transfection efficiency.