Figure S1





Figure S1. Cell densities in culture do not affect proliferation rates of MKN45-Luc cells. MKN45-Luc cells were cultured at the indicated densities in a 12-well plate. After 12 h in culture, luciferase activities (a) and total viable cell numbers (b) were measured. Data are expressed as mean \pm SD (n = 3).



Figure S2. Expression levels of *Ror2* and *Wnt5a* in MKN45-Luc cells and MSCs. MKN45-Luc cells and MSCs were transfected with either *ctrl* siRNA or three different siRNAs against *Ror2* (#1, #2, #3). After 6 days in culture, mRNA levels of *Ror2* (a) and *Wnt5a* (b) were measured by quantitative RT-PCR analyses. (c) Temporal expression patterns of *Ror2* and *Wnt5a* in MSCs cultured singly were measured by quantitative RT-PCR analyses.



(a)

Figure S3. Expression of *Wnt5a* in MSCs is required for the ability of MSCs to promote proliferation of MKN45-Luc cells in culture. (a) Suppressed expression of *Wnt5a* in MSCs treated with siRNA for *Wnt5a*. MSCs were transfected with either *ctrl* siRNA or siRNA against *Wnt5a*, and cultured for 3 or 6 days. Expression levels of *Wnt5a* mRNA were measured by quantitative RT-PCR analyses. (b, c) MKN45-Luc cells were cultured singly (mono-culture) or co-cultured with siRNA-transfected MSCs either directly (b) or indirectly (c). Luciferase activities were measured at the indicated time points. Data are expressed as mean \pm SD (n = 3; **, P < 0.001, *t* test).



Figure S4. Effect of suppressed expression of *Ror2* or *Wnt5a* on viability of MSCs and expression of *CXCL16* in MSCs, respectively. MSCs were transfected with *ctrl* siRNA or three different siRNAs against *Ror2* (#1, #2, #3) (a). Cell viability was measured at the indicated time points by WST-8 assay. Data are expressed as mean \pm SD (n = 3). (b) Effect of suppressed expression of *Wnt5a* on expression of *CXCL16* in MSCs. MSCs were transfected with *ctrl* siRNA or siRNA against *Wnt5a*. After day 3 and day 6 in culture, mRNA levels of *CXCL16* were measured by quantitative RT-PCR analyses. Data are expressed as mean SD (n = 3; *P < 0.05, *t* test).



Figure S5. Expression levels of *CXCR6* in MKN45-Luc cells and MSCs. Total RNAs isolated from MKN45-Luc cells and MSCs were subjected to quantitative RT-PCR analyses. Data are expressed as mean \pm SD (n = 3; **, P < 0.0001, *t* test).



Figure S6. Effects of suppressed expression of *CXCR6* on proliferation of MKN45-Luc cells cultured singly or co-cultured with MSCs. MKN45-Luc cells transfected with either *ctrl* or *CXCR6* siRNA were cultured singly (monoculture) or co-cultured with MSCs either directly or indirectly. After 9 days in culture, luciferase activities were measured. Note that suppressed expression of *CXCR6* had only a marginal effect

on proliferation of MKN45-Luc cells when cultured singly, compared with a drastic inhibition of their proliferation when co-cultured with MSCs. Data are expressed as mean \pm SD (n = 3; *, P < 0.005; **, P < 0.001; n.s., not significant, *t* test).