

**Figure S1 – Effect of titrated G-helix peptide on cell migration.** Time lapse video microscopy of: **Panel a)** VSMC incubated with G-helix peptide (closed bars) or DMSO (open bars) and **Panel b)** DU145 incubated with G-helix peptide. Standard time lapse conditions as described.

Data shown represent the means and SEM of three independent experiments, presented as percentage of the migration of the cells incubated with no additions in each case.

**Movie 1 - Time lapse video microscopy of DU145 transfected with empty vector pcDNA3.2.** Cells were photographed every 15 min over 13 hours using a x10 objective. Movies show 10 frames per second at 9000x real time.

**Movie 2 - Time lapse video microscopy of DU145 transfected with pcDNA3.2-Maspin.** Conditions identical to movie 1.

**Movie 3 - Time lapse video microscopy of DU145 transfected with pcDNA3.2-K90A.** Conditions identical to movie 1.

**Movie 4 - Time lapse video microscopy of DU145 transfected with pcDNA3.2-E115A.** Conditions identical to movie 1.

**Movie 5 - Time lapse video microscopy of DU145 transfected with pcDNA3.2-R340A.** Conditions identical to movie 1.

**Movie 6 - Time lapse video microscopy of DU145 transfected with pcDNA3.2-E244A.** Conditions identical to movie 1.

**Movie 7 - Time lapse video microscopy of DU145 transfected with pcDNA3.2-E247A.** Conditions identical to movie 1.

**Movie 8 -Time lapse video microscopy of VSMC incubated with DMSO.** Cells were photographed every 10 min over 17 hours using a x10 objective. Movies show 10 frames per second at 6000x real time.

**Movie 9 - Time lapse video microscopy of VSMC incubated with 10 $\mu$ M G-helix peptide.** Conditions identical to movie 8.

**Movie 10 - Time lapse video microscopy of VSMC incubated with 10 $\mu$ M E244A peptide.** Conditions identical to movie 8.

**Movie 11 - Time lapse video microscopy of VSMC incubated with 10 $\mu$ M E247A peptide.** Conditions identical to movie 8.

**Movie 12 - Time lapse video microscopy of VSMC incubated with 10 $\mu$ M rearranged control peptide.** Conditions identical to movie 8.

**Movie 13 - Time lapse video microscopy of VSMC incubated with 5µg/ml control IgG and DMSO.** Conditions identical to movie 8.

**Movie 14 - Time lapse video microscopy of VSMC incubated with 5µg/ml control IgG and 10µM G-helix peptide.** Conditions identical to movie 8.

**Movie 15 - Time lapse video microscopy of VSMC incubated with 5µg/ml control IgG and 10µM E244A peptide.** Conditions identical to movie 8.

**Movie 16 - Time lapse video microscopy of VSMC incubated with 5µg/ml Mab1980 and DMSO.** Conditions identical to movie 8.

**Movie 17 - Time lapse video microscopy of VSMC incubated with 5µg/ml Mab1980 and +10µM G-helix peptide.** Conditions identical to movie 8.

**Movie 18 - Time lapse video microscopy of VSMC incubated with 5µg/ml Mab1980 and 10µM E244A peptide.** Conditions identical to movie 8.

**Movie 19 - Time lapse video microscopy of VSMC incubated with 5µg/ml Mab13 and DMSO.** Conditions identical to movie 8.

**Movie 20 - Time lapse video microscopy of VSMC incubated with 5µg/ml Mab13 and 10µM G-helix peptide.** Conditions identical to movie 8.

**Movie 21 - Time lapse video microscopy of VSMC incubated with 5µg/ml Mab13 and 10µM E244A peptide.** Conditions identical to movie 8.