



Figure S1

**Fig. S1. Effects of Imp7 or Imp8 overexpression on subcellular distribution of Smad4 in HeLa cells.** *A*, quantitation of experiments in Fig. 5A. Cells exhibiting different Flag-Smad4 distribution patterns were counted (n>250) and the percentages are shown in the chart. *B*, quantitation of experiments in Fig. 5B. Cells exhibiting different Flag-Smad4-3KA distribution patterns were counted (n>250) and the percentages are shown in the chart. *C*, HeLa cells were transfected with Flag-Smad4, and HA-Imp7 or -Imp8 as indicated. The whole cell extracts were analyzed by immunoblotting to examine the levels of overexpressed Imp7 and Imp8. Lamin A/C was used as a loading control.

**Table S1.** Quantification of nuclear and cytoplasmic staining (per unit area) of transfected Smad4 after indicated RNAi and LMB treatments in 293T cells (n=20 in each case).

	control -LMB	control +LMB	siImp7b +LMB	siImp8 +LMB
<b>N/C ratio mean<math>\pm</math> SD</b>	0.7 $\pm$ 0.1	1.6 $\pm$ 0.2	1.0 $\pm$ 0.1	1.0 $\pm$ 0.2

**Table S2.** Quantification of nuclear and cytoplasmic staining of Smad7 (per unit area) when overexpressed in 293T cells (n=20 in each case).

<b>siRNA</b>	control	siImp7	siImp8	siImp7&8
<b>N/C ratio mean<math>\pm</math> SD</b>	1.7 $\pm$ 0.2	1.6 $\pm$ 0.2	1.7 $\pm$ 0.3	1.7 $\pm$ 0.2

**Table S3.** Quantification of nuclear and cytoplasmic staining (per unit area) of Smad4 in 293T cells with indicated siRNA and rescue plasmids transfection. All cells were treated with LMB (n=20).

<b>siRNA</b>	control	siImp8		
<b>rescue plasmid</b>	vector	vector	Imp8m	Imp7
<b>N/C ratio mean<math>\pm</math> SD</b>	1.7 $\pm$ 0.3	1.0 $\pm$ 0.1	1.9 $\pm$ 0.3	1.0 $\pm$ 0.1

**Table S4.** Quantification of nuclear and cytoplasmic staining (per unit area) of Flag-Smad4 in 293T cells with indicated siRNA and rescue plasmids transfection. All cells were treated with LMB (n=20).

<b>siRNA</b>	control	siImp7&8		
<b>rescue plasmid</b>	vector	vector	Imp7m	Imp8
<b>N/C ratio mean<math>\pm</math> SD</b>	1.7 $\pm$ 0.3	1.0 $\pm$ 0.2	1.1 $\pm$ 0.3	1.8 $\pm$ 0.3

**Table S5.** Quantification of nuclear and cytoplasmic staining (per unit area) of wild type and the 3KA mutant of Smad3 when expressed in Hela cells (n=15~20).

<b>Smad3 vector</b>	WT	3KA	WT	3KA
<b>Imp8 vector</b>	-		Imp8	
<b>N/C ratio mean<math>\pm</math> SD</b>	1.4 $\pm$ 0.4	1.1 $\pm$ 0.2	2.6 $\pm$ 0.5	1.2 $\pm$ 0.2