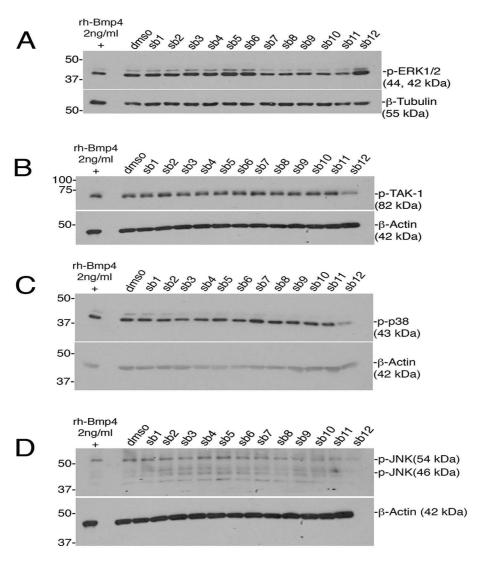


Supplemental Fig. S1. A) Immunoblot of lysate from BRE-Luc cells treated with increasing concentrations of rhBMP4 (0, 0.4, 2, 10 ng/ml). Membranes were probed with antibodies against p-Smad-2, p-Smad-3, or Smad2/3. β-actin was used as an additional loading control. The blot shows 3 biological replicates for each dose. B) Immunoblot of lysates from BRE-Luc cells treated with either 2 ng/ml rhBMP4 (positive control), 0.04% DMSO (negative control), or the top twelve BMP signaling agonists at 10 μM for 1 h in BRE-Luc cells. The same membranes as in Fig. 4 were re-probed with antibodies against p-Smad-2, p-Smad-3, or Smad2/3. β-actin was used as an additional loading control. Note that BMP4 has no effects on p-Smad-2/3 levels even at high doses. Similarly, compounds sb1-sb12 have no effect on p-Smad-2/3.



Supplemental Fig. S2. Immunoblots of lysates from BRE-Luc cells treated with either 2 ng/ml rhBMP4 (positive control), 0.04% DMSO (negative control), or the top twelve signaling agonists at 10  $\mu$ M for 1 h. Membranes were probed with antibodies against either p-ERK-1/2 (A) using  $\beta$ -tubulin as a loading control, or p-TAK-1 (B), p-p38 (C), or p-JNK (D), using  $\beta$ -actin as a loading control.