

Supporting Information Figure Legends

Fig. S1. Dorsomorphin and the SAR analysis of the pyrazolo[1,5-*a*]pyrimidine core structure.

Fig. S2. Dorsomorphin (DM), DMH2 and DMH3 inhibited BMP signaling in a dose dependent manner in a BMP-responsive-luciferase (BR-Luc) reporter assay. RLU, relative luciferase units.

Fig. S3. DMH1 inhibited the induction of the BMP-responsive-luciferase reporter expression by the constitutively active ALK2 (CaAlk2) and ALK3 (CaAlk3) but not by the constitutively active ALK6 (CaAlk6).