pharmaceutics

# Supplementary Materials: Zoledronic Acid as a Novel Dual Blocker of Kir6.1/2-Sur2 Subunits of ATP-Sensitive $K^+$ Channels: Role in the Adverse Drug Reactions

**Maqoud Fatima, Scala Rosa, Tragni Vincenzo, Pierri Ciro Leonardo, Perrone Maria Grazia, Scilimati Antonio and Tricarico Domenico**

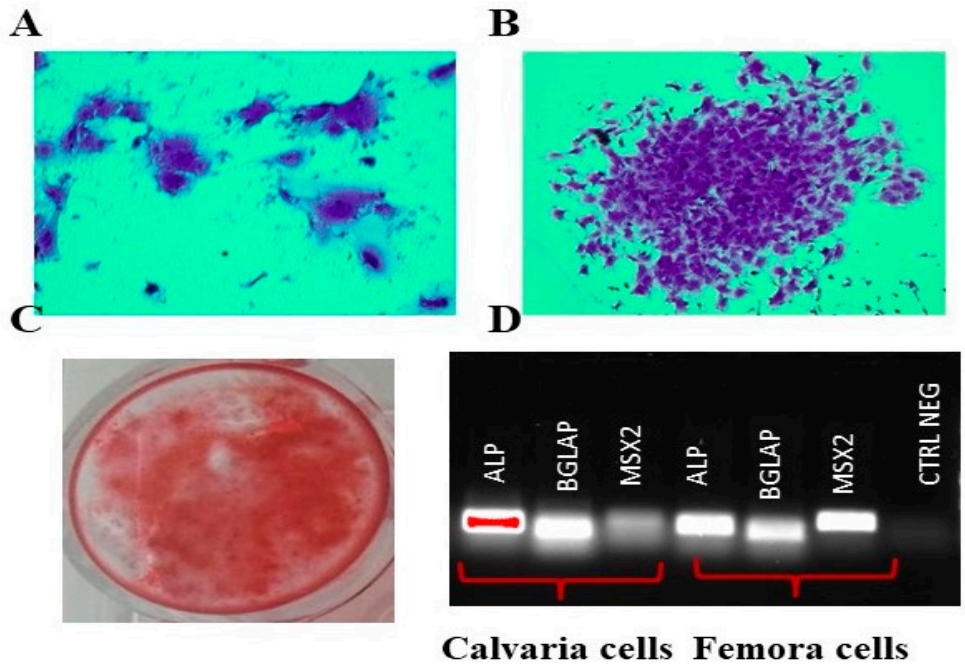


**Figure S1.** Primary bone cells are expected to be enriched in osteoblasts. Cells from femora *(A)* and calvaria chips *(B)* of WT/WT mice. Primary long bone cells can produce extracellular matrix, as revealed by Alizarin red staining, confirming the functional osteoblastic phenotype. (*C*) Femora and calvaria cell pellets were positive to Alkaline phosphatase (ALP), Osteocalcin (BGLAP), and Msh homeobox 2 **(**MSX2) genes in PCR analysis (*D*).

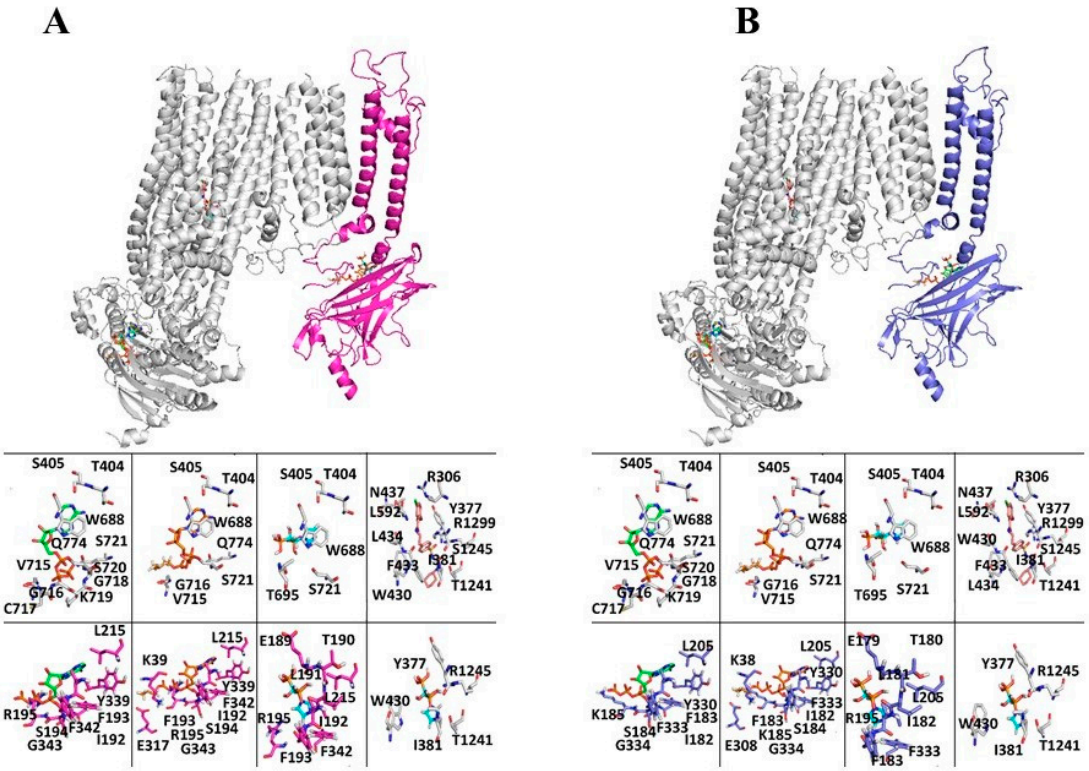


**Figure S2.** 3D comparative models of Kir.6.1-Sur1 human protein complex (**A**). Lateral views of Sur1 (grey cartoon)-Kir6.1 (magenta cartoon) human protein complex is reported in cartoon representation. In the panels below, within the first row, ATP (green sticks), ATP-IPP (orange sticks), zoledronic acid (cyan sticks) are reported in Sur1 ATP binding region (white sticks), whereas Glib (pink sticks) is reported in Sur1 – Glib binding region (in white sticks). In the panels below, within the second row, ATP (green sticks), ATP-IPP (orange sticks), zoledronic acid (cyan sticks) are reported in Kir.6.1 ATP binding region (magenta sticks). In addition, zoledronic acid is reported in the Sur1-Glib binding region (white sticks). (**B**) 3D comparative models of Kir.6.2-Sur1 human protein complex. Lateral views of Sur1 (grey cartoon)-Kir6.2 (dark blue cartoon) human protein complex is reported in cartoon representation. In the panels below, within the first row, ATP (green sticks), ATP-IPP (orange sticks), zoledronic acid (cyan sticks) are reported in Sur1 ATP binding region (white sticks), whereas Glib (pink sticks) is reported in Sur1 – Glib binding region (in white sticks). In the panels below, within the second row, ATP (green sticks), ATP-IPP (orange sticks), zoledronic acid (cyan sticks) are reported in Kir.6.2 ATP binding region (dark blue sticks). In addition, Zoledronic acid is reported in the Sur1-Glib binding region (white sticks).