

Activation of the ER α , ER β , and GPER receptors down-regulates voltage-gated Ca²⁺ channels in coronary arteries

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The intracellular increase of Ca²⁺ in coronary arteries cells causes arterial constriction that leads to a poor blood irrigation of the heart. The goal of this study is to define if ICI 182780 (an E2 antagonist) blocks E2 from binding to its receptor, thus decreasing the expression of SERCA. Western blot data imply that the binding of E2 to its receptor is responsible for the increase in SERCA expression. Understanding how E2 works in increasing SERCA expression is significant for compassing the cardio-protective effects of E2 in women.