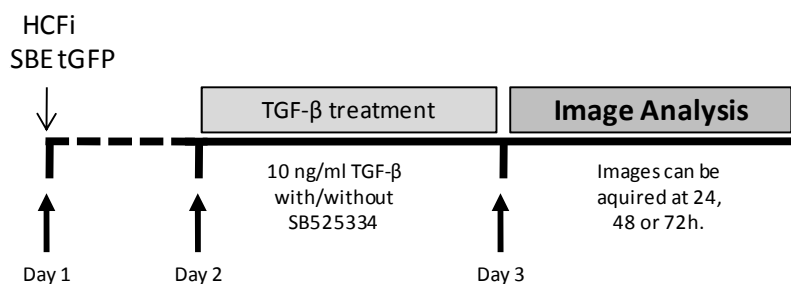


CARDIAC FIBROSIS *IN VITRO* MODEL

TGF- β -induced fibrosis on immortalized Human Cardiac Fibroblasts

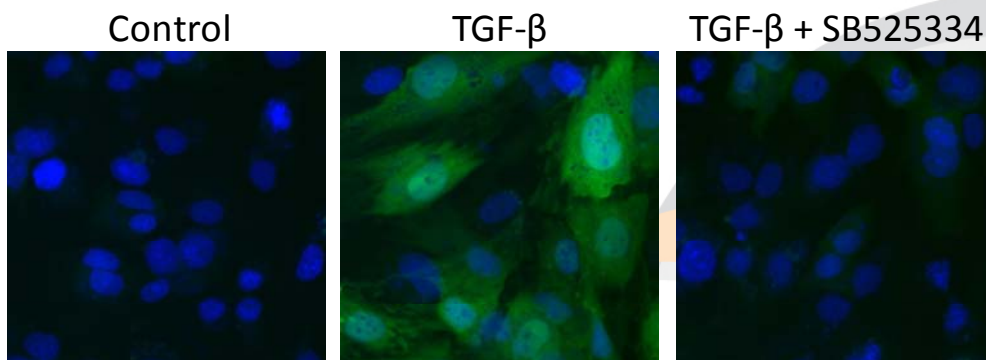
Our model

Our immortalized Human Cardiac Fibroblast cell line stably expresses Smad Binding Elements (SBE) tagged to tGFP (SBE-tGFP). The induction of the cells with TGF- β , triggers the downstream cellular pathways that ultimately lead to Smad protein binding to SBE elements in the nucleus. This binding activates the expression of the SBE-tGFP, significantly increasing the green fluorescent signal of the cells. Using a specific TGF- β type I receptor (Alk5) inhibitor, known as SB525334 (CAS Number 356559-20-1), the expression of SBE-tGFP is disrupted.



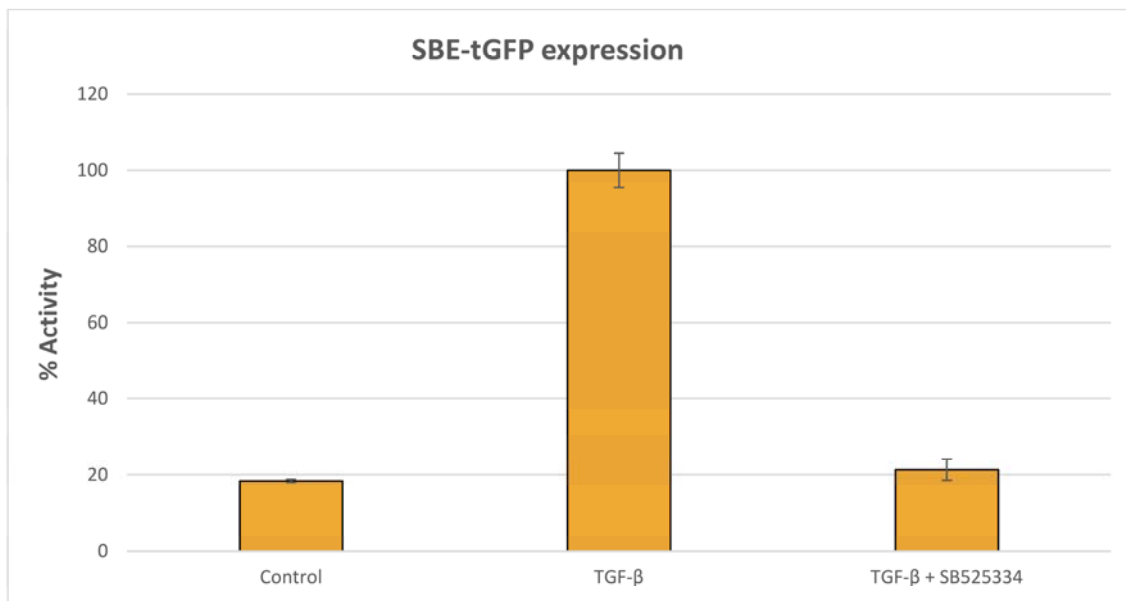
Readout

- SBE-tGFP expression:



The images are acquired with the CellInsight CX7 Platform (ThermoFisher)

• Image Analysis:



The images are analyzed using the Cellomics Scan Software.