

Application Note

Introduction

The aim of this experiment is to examine the effect of Alirocumab and Evolocumab on the proliferation of human umbilical vein endothelial cells (HUVECs) in vitro. These antibodies target PCSK9, which is an enzyme that binds to low-density lipoprotein receptors for degradation. This study was set up to investigate PCSK9-inhibitor effects on HUVEC proliferation (Catalog number: **PX-TA1287** and **PX-TA1307**).

Results

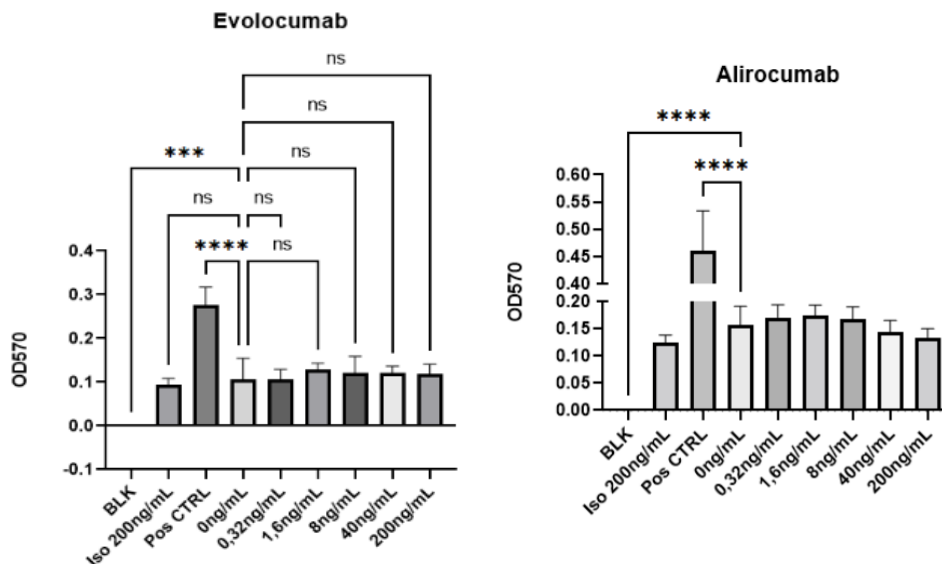
Inhibiting of PCSK9 in vitro did not result in altered proliferation of HUVECs. No effects were seen upon quantification of metabolic activity after 48 hours of adding Alirocumab or Evolocumab in various concentrations.

Method

HUVECs were seeded at 4000 cells/well in sextuplicate per condition in culture medium with 2 % FBS. After 24 hours, the cells were starved with 0.2 % FBS. The next day, concentrations ranging from 0 ng/ml to 1000 ng/ml of Alirocumab or Evolocumab were introduced to the wells. After 48 hours, a standard MTT assay was performed and the metabolic activity measured using a colorimeter at OD_{570nm}.

Conclusion

Alirocumab and Evolocumab do not affect the metabolic activity of HUVECs.



Figures: Measurements at OD_{570nm} of the metabolic activities of HUVECs with different concentrations of Evolocumab (left figure) and Alirocumab (right figure) in a MTT assay.

