

COSMETICS

Elastase activity

Elastase plays an important role in the degradation of a wide variety of extracellular matrix proteins, including fibronectin, laminin, proteoglycans, collagens and elastin. Elastin and collagen are the primary components of the dermis and are critical for skin structure and support^{1,2}.

Test system: Elastase Enzyme.

Experimental number: Three wells per group in triplicate.

Reference Item: Inhibitor Control (30 μ M SPCK).

Main read-outs:

Excitation and Emission = 400/505 nm.

The Relative Fluorescence Unit (RFU) generated by hydrolyzation of substrate is Δ RFU = R2 – R1.

Validation Data

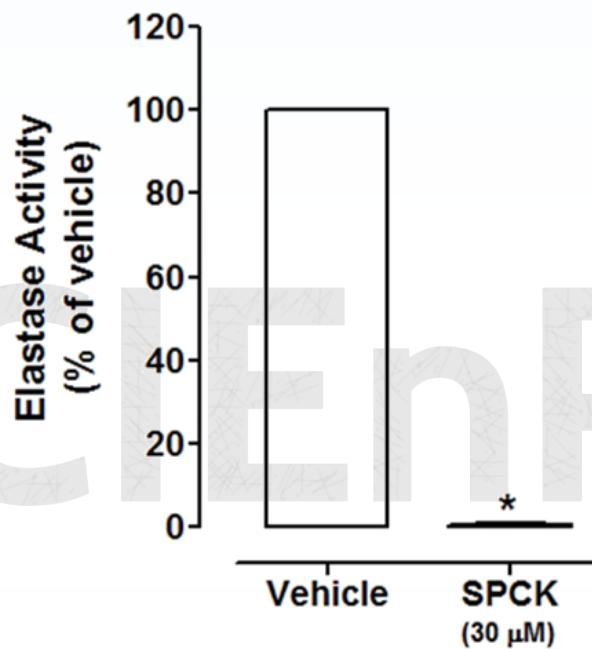


Figure: Evaluation of Elastase inhibition of SPCK. The figure represents the inhibition of elastase after incubation of SPCK (30 μ M), when compared with control group (vehicle). Each column represents the mean \pm SEM of 3 experiments per group in triplicate. Statistical analyses used was t-test. * P < 0.05, versus vehicle group.

All in vitro experiments are performed in triplicate wells for each condition and repeated at least three times.

References:

¹Imokawa G. Mechanism of UVB-induced wrinkling of the skin: paracrine cytokine linkage between keratinocytes and fibroblasts. J Investig Dermatol Symp Proc. 2009 Aug 14(1):36-43.

²Beneficial Regulation of Matrix Metalloproteinases for Skin Health. Neena Philips, Susan Auler, Raul Hugo, and Salvador Gonzalez. Enzyme Research Volume 2011 (2011), Article ID 427285, 4 pages