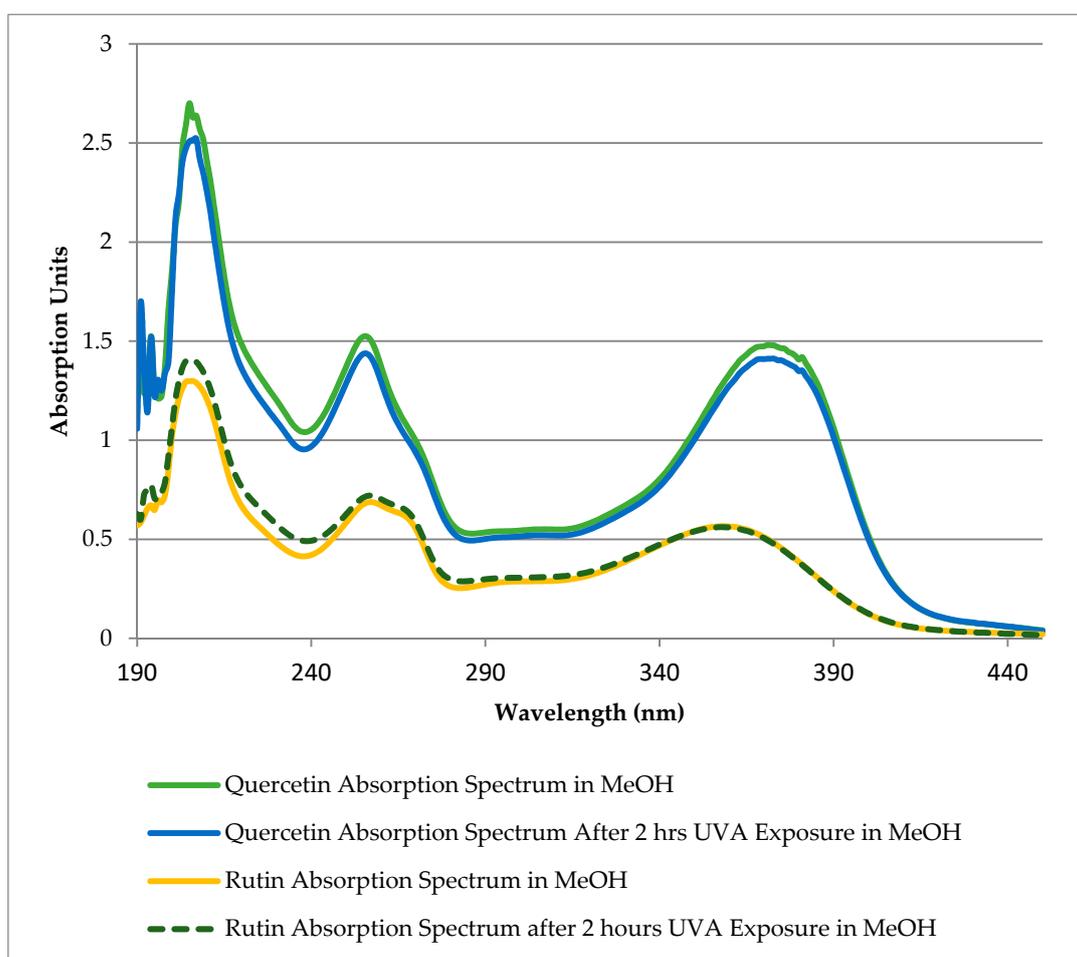


# Development of a UV-Stabilized Topical Formulation of Nifedipine for the Treatment of Raynaud Phenomenon and Chilblains: Supplementary Information

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**Figure S1.** UV absorption spectra of quercetin (green) and rutin (red), before and after UVA exposure. Unlike nifedipine, rutin and quercetin maintain essentially the same absorption spectrum, suggesting they are more photostable. They both have a broad absorption peak similar to that of nifedipine ( $\lambda_{\max} = 348 \text{ nm}$ ) supporting the idea that rutin or quercetin could compete for photon absorption with nifedipine and thereby spare nifedipine from photodegradation.

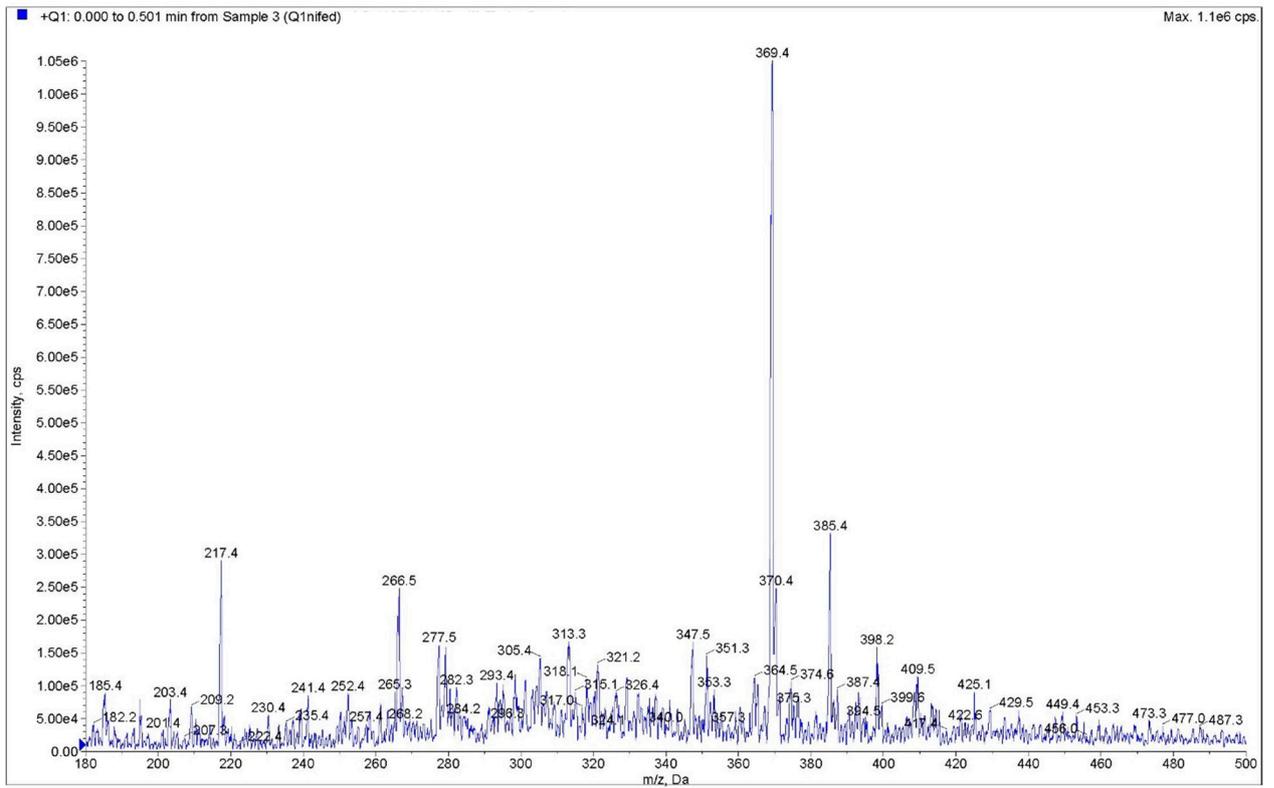
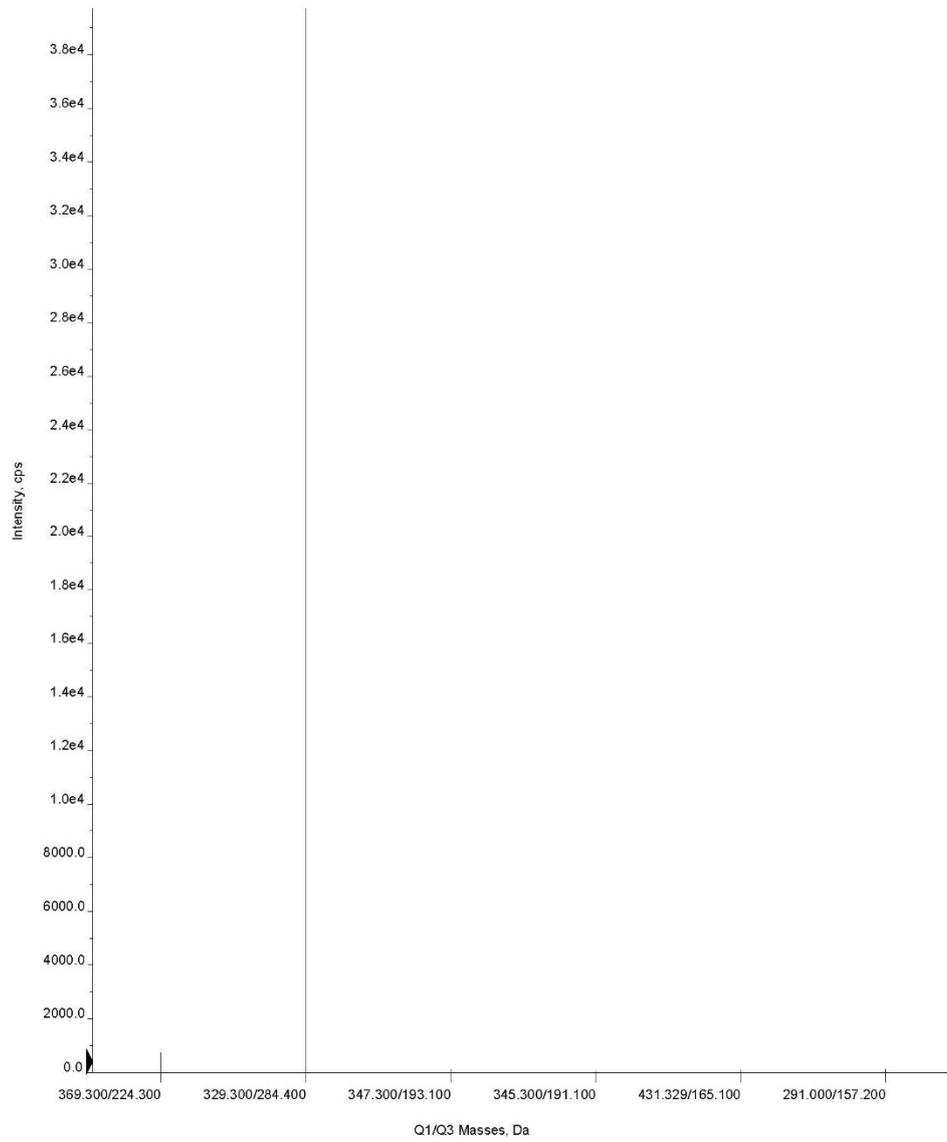


Figure S2. Mass spectrum of nifedipine extracted from the cream (Q1 scan) indicating  $m/z = 369$ .



**Figure S3.** Mass spectrum of dehydronitrosonefedipine (+MRM) indicating  $m/z = 329$ .