



Supplementary Figure 1. Action spectra of UVR genotoxicity in the skin. (A) Representative dose-dependent mutation induction kinetics in mouse skin. The indicators used for estimation of the UVR biological effects on the skin (mutagenicity, MIS and inflammation) are illustrated using the dose-response plot of mutant frequency (MF) induction by 300-nm monochromatic UVR. The indices of these indicators used for the generation of action spectra are given on the right. The kinetics for the epidermis (closed circles, red and navy-blue lines) shows a typical MIS response. (B) The action spectra of mutagenicity (epidermis: red diamonds, dermis: cyan diamonds), inflammation (green circles) and MIS (blue open circles) are shown comparing with the action spectrum of CIE erythema (violet line).² Each spectrum is normalized at 307 nm to 1. Refer to ref. 5 for more details.