Electronic Supplementary Material (ESI) for Photochemical & Photobiological Science

The specificity of UVA-induced DNA damage in human melanocytes

Stéphane Mouret, Anne Forestier and Thierry Douki

Supplementary information

Figure S1: emission spectra of the UVB and UVA lamps

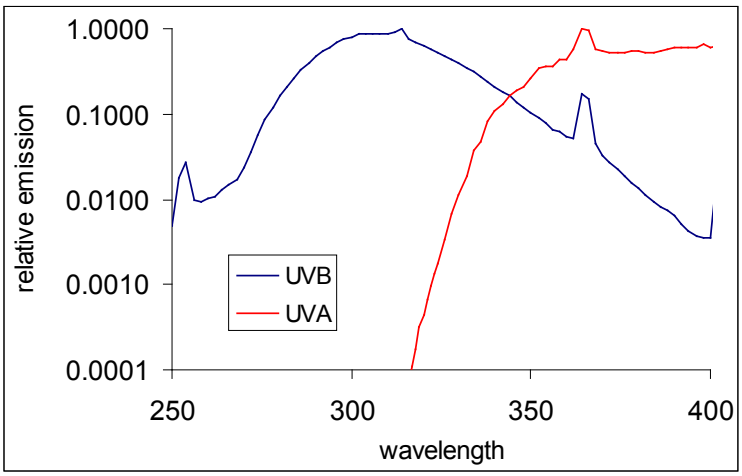

Table S1: Comparison of the expression of modulated DNA repair genes between melanocytes and keratinocytes for three donors.

	Donor 1	Donor 2	Donor 3
Base Excision Repair			
OGG1	1.87 ± 0.45	0.92 ± 0.24	0.81 ± 0.16
APE1	3.29 ± 0.80	0.87 ± 0.09	1.57 ± 0.31
MYH	2.85 ± 0.69	0.94 ± 0.09	1.99 ± 0.40
UNG	5.27 ± 1.28	1.13 ± 0.11	1.85 ± 0.37
NTHL1	2.39 ± 0.58	0.91 ± 0.09	1.23 ± 0.25
APTX	0.51 ± 0.26	0.62 ± 0.30	0.79 ± 0.13
PARP1	1.17 ± 0.59	1.58 ± 0.78	3.09 ± 0.53
XRCC1	2.56 ± 1.30	1.62 ± 0.81	1.12 ± 0.19
LigI	0.63 ± 0.15	1.13 ± 0.11	1.91 ± 0.38
Lig III	1.63 ± 0.83	1.12 ± 0.55	1.53 ± 0.26
polB	1.96 ± 0.71	1.01 ± 0.25	1.31 ± 0.43
Nucleotide Excision Repair			
XPA	2.94 ± 1.49	1.53 ± 0.75	1.91 ± 0.33
XPC	1.24 ± 0.63	0.74 ± 0.36	0.79 ± 0.13
XPD	2.30 ± 0.56	0.83 ± 0.08	1.22 ± 0.24
XPB	2.19 ± 0.53	0.80 ± 0.08	1.31 ± 0.26
DDB1	3.34 ± 1.69	1.82 ± 0.90	3.25 ± 0.55
DDB2	0.69 ± 0.35	1.01 ± 0.50	1.54 ± 0.26
CSA	1.43 ± 0.72	1.11 ± 0.55	0.89 ± 0.15
CSB	0.58 ± 0.30	0.49 ± 0.24	0.40 ± 0.07
ERCC1	0.56 ± 0.28	0.44 ± 0.22	0.39 ± 0.07
polD	0.59 ± 0.21	0.74 ± 0.19	1.49 ± 0.48
polE	0.34 ± 0.13	1.15 ± 0.29	1.47 ± 0.48
PCNA	1.73 ± 0.88	2.06 ± 0.82	2.17 ± 0.37
Double Strand Breaks Repair			
Ku 70	0.76 ± 0.28	0.76 ± 0.19	1.38 ± 0.45
Ku 80	0.90 ± 0.33	0.81 ± 0.20	1.29 ± 0.42
DNA-PKcs	1.49 ± 0.36	0.81 ± 0.08	1.78 ± 0.36
MRE11	1.30 ± 0.32	1.14 ± 0.34	1.25 ± 0.25
rad 50	1.44 ± 0.52	0.95 ± 0.24	1.09 ± 0.36
nbs 1	1.23 ± 0.45	1.20 ± 0.30	0.91 ± 0.30
XRCC4	1.41 ± 0.34	1.12 ± 0.33	0.79 ± 0.16
Lig IV	1.55 ± 0.38	1.89 ± 146	0.90 ± 0.18
polM	2.29 ± 0.83	1.64 ± 0.41	1.85 ± 0.60
Alkylation and Mismatch Repair			
MGMT	2.46 ± 0.90	1.00 ± 0.25	0.81 ± 0.27
mlh 1	0.92 ± 0.34	0.99 ± 0.25	1.30 ± 0.42
msh 3	1.31 ± 0.48	1.12 ± 0.28	0.71 ± 0.23
msh 6	0.64 ± 0.23	0.67 ± 0.17	0.58 ± 0.19

Values represent the mean variation for the four reference genes. Error bars are standard deviations. Values larger than 1 correspond to genes more expressed in melanocytes while ratios below 1 correspond to genes more expressed in keratinocytes.