

Supporting Information

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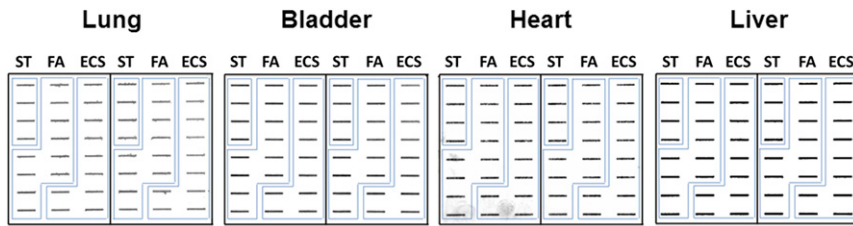


Fig. S1. Methylene blue staining of input DNA used for slot blot antibody hybridization. The same amount of input DNA from different samples were spotted onto two separated membranes, one for slot blot hybridization shown in Fig. 1, and the other was used for methylene blue staining as shown here. The method is the same as previously described (28). Abbreviations are the same as in Fig. 1.

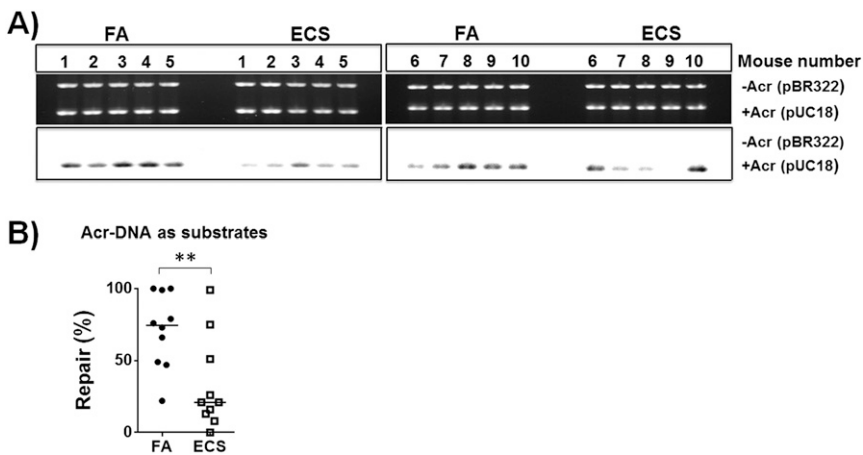


Fig. S2. ECS causes a reduction of repair activity toward Acr-modified DNA in lung tissues. Cell-free cell lysates were isolated from lung tissues of mice exposed to ECS ($n = 10$) or FA ($n = 10$) the same as described in Fig. 3. The DNA-repair activity toward Acr-modified DNA (modified with 5 mM Acr for 16 h at 37 °C) of these cell lysates was determined using the in vitro DNA-dependent repair synthesis assay. The method of quantification is the same as described Fig. 3. (A) Ethidium-stained gels (*Upper*) and the autoradiograms (*Lower*) of the same gels. (B) Quantifications.

Table S1. DNA adduct formation (O⁶-medG and PdG) in mouse lung, bladder, heart, liver, and DNA-repair (NER and BER) activity in lung in mice exposed to FA (n = 10) or ECS (n = 10) for 12 wk

Mouse designation	O ⁶ -medG/10 ⁷ dG				PdG/10 ⁷ dG				Lung	
	Lung	Bladder	Heart	Liver	Lung	Bladder	Heart	Liver	Relative NER activity	Relative BER activity
FA-1	<0.1	0.3	0.2	0.6	9.3	7.6	2.4	1.3	86	100
FA-2	<0.1	0.1	0.1	0.6	16.3	12.0	2.3	1.9	45	81
FA-3	0.7	0.1	0.2	0.4	63.4	12.9	0.9	1.2	100	61
FA-4	<0.1	<0.1	0.1	0.3	21.3	1.4	1.0	1.0	92	51
FA-5	<0.1	<0.1	0.1	0.9	1.2	1.8	0.3	11.2	36	41
FA-6	0.8	0.1	0.1	1.3	69.8	0.8	5.8	6.3	66	46
FA-7	0.3	0.2	0.2	0.9	16.5	1.0	3.4	4.9	41	56
FA-8	<0.1	0.6	0.4	1.0	18.6	1.1	13.3	3.8	100	92
FA-9	<0.1	0.1	0.4	2.4	8.3	1.0	17.8	34.5	72	80
FA-10	<0.1	1.1	0.2	0.9	15.2	16.9	13.6	5.1	71	100
ECS-1	2.7	1.6	0.8	0.7	54.0	23.2	29.2	3.9	3	14
ECS-2	3.8	<0.1	0.3	0.7	93.0	2.8	20.0	3.6	6	9
ECS-3	5.5	2.2	0.2	0.9	112.7	74.2	27.8	4.9	66	24
ECS-4	6.3	3.4	0.5	1.0	148.9	70.1	28.3	7.0	26	11
ECS-5	6.7	0.4	0.7	1.0	182.7	14.9	50.2	4.8	60	15
ECS-6	2.7	4.1	2.2	1.5	89.2	81.6	48.2	5.9	12	45
ECS-7	2.8	0.4	0.5	1.3	166.1	16.3	38.8	5.0	20	64
ECS-8	1.2	3.6	0.4	1.0	60.8	81.5	17.0	4.5	13	48
ECS-9	6.0	2.5	0.3	0.9	104.0	54.1	29.2	7.2	0	5
ECS-10	2.9	1.8	0.3	0.4	73.9	58.6	19.5	4.9	78	98