Annex IV-2

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

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Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
VP	1	AOO	0	1	0.24	1.17	NA	NA	NA	NA
				2	0.20	0.95				
				3	0.18	0.88				
				4	0.21	1.00				
				Mean	**0.21**	**1.00**				
PC	1	AOO	0	1	0.49	2.33	NA	NA	NA	NA
				2	0.40	1.92				
				3	0.48	2.29				
				4	0.36	1.73				
				Mean	**0.43**	**2.07**				
VS	1	AOO	0	1	0.29	0.96	NA	NA	NA	NA
				2	0.30	1.00				
				3	0.37	1.22				
				4	0.25	0.82				
				Mean	**0.43**	**2.07**				
Methyl salicylate	1	AOO	10	1	0.43	1.42	NC	NC	NC	NC
				2	0.38	1.26				
				3	0.41	1.34				
				4	0.51	1.69				
				Mean	**0.43**	**1.43**				
			25	1	0.56	1.86				
				2	0.31	1.04				
				3	0.29	0.95				
				4	0.51	1.68				
				Mean	**0.42**	**1.38**				
			0.5	1	0.33	1.08				
				2	0.36	1.21				
				3	0.40	1.34				
				4	0.43	1.43				
				Mean	**0.38**	**1.26**				
2, 4-Dinitrochlorobenzene	1	AOO	0.1	1	0.68	2.24	0.06	0.06	0.08	0.08
				2	0.58	1.93				
				3	0.90	3.00				
				4	0.54	1.77				
				Mean	**0.67**	**2.23**				
			0.3	1	1.15	3.82				
				2	1.31	4.34				
				3	0.87	2.88				
				4	1.11	3.66				
				Mean	**1.11**	**3.68**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
2, 4-Dinitrochlorobenzene (continued)	1	AOO	1	1	1.25	4.16				
				2	1.23	4.07				
				3	1.23	4.08				
				4	1.48	4.90				
				Mean	**1.30**	**4.30**				
VP	1	AOO	0	1	0.04	0.67	NA	NA	NA	NA
				2	0.07	1.27				
				3	0.03	0.60				
				4	0.08	1.47				
				Mean	**0.06**	**1.00**				
PC	1	AOO	0	1	0.22	4.04	NA	NA	NA	NA
				2	0.37	6.73				
				3	0.38	6.88				
				4	0.38	6.79				
				Mean	**0.34**	**6.11**				
VS	1	AOO	0	1	0.15	0.93	NA	NA	NA	NA
				2	0.27	1.69				
				3	0.11	0.69				
				4	0.11	0.69				
				Mean	**0.16**	**1.00**				
Hexyl cinnamic aldehyde	1	AOO	10	1	0.23	1.48	9.40	10.40	14.80	16.20
				2	0.22	1.36				
				3	0.25	1.60				
				4	0.29	1.83				
				Mean	**0.25**	**1.57**				
			25	1	0.35	2.20				
				2	0.45	2.87				
				3	0.42	2.69				
				4	0.42	2.68				
				Mean	**0.41**	**2.61**				
			50	1	0.48	3.04				
				2	0.57	3.62				
				3	0.61	3.87				
				4	0.49	3.09				
				Mean	**0.54**	**3.40**				
Isopropanol	1	AOO	10	1	0.20	1.27	4.10*	4.92*	7.38*	8.20*
				2	0.68	4.28				
				3	0.28	1.78				
				4	0.24	1.53				
				Mean	**0.35**	**2.22**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Isopropanol (continued)	1	AOO	25	1	0.15	0.97				
				2	0.13	0.85				
				3	0.10	0.64				
				4	0.09	0.59				
				Mean	**0.12**	**0.76**				
			50	1	0.16	0.98				
				2	0.11	0.69				
				3	0.11	0.71				
				4	0.20	1.29				
				Mean	**0.15**	**0.92**				
VP	1	ACE	0	1	0.13	1.61	NA	NA	NA	NA
				2	0.07	0.80				
				3	0.05	0.57				
				4	0.08	1.01				
				Mean	**0.08**	**1.00**				
PC	1	ACE	0	1	0.23	2.83	NA	NA	NA	NA
				2	0.33	4.05				
				3	0.31	3.83				
				4	0.25	3.04				
				Mean	**0.28**	**3.44**				
VS	1	ACE	0	1	0.09	0.87	NA	NA	NA	NA
				2	0.09	0.84				
				3	0.17	1.57				
				4	0.08	0.73				
				Mean	**0.11**	**1.00**				
Gluteraldehyde	1	ACE	0.1	1	0.12	1.09	0.06	0.08	0.14	0.18
				2	0.21	1.96				
				3	0.25	2.31				
				4	0.18	1.66				
				Mean	**0.19**	**1.76**				
			0.3	1	0.25	2.30				
				2	0.26	2.41				
				3	0.33	3.11				
				4	0.19	1.76				
				Mean	**0.26**	**2.40**				
			1	1	0.27	2.47				
				2	0.54	5.03				
				3	0.35	3.30				
				4	0.44	4.10				
				Mean	**0.40**	**3.72**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Formaldehyde	1	ACE	1	1	0.28	2.59	0.27	0.29	0.37	0.41
				2	0.51	4.75				
				3	0.27	2.47				
				4	0.27	2.52				
				Mean	**0.33**	**3.08**				
			3	1	0.50	4.69				
				2	0.50	4.69				
				3	0.53	4.92				
				4	0.35	3.28				
				Mean	**0.47**	**4.40**				
			10	1	0.18	1.71				
				2	0.22	2.00				
				3	0.18	1.70				
				4	0.18	1.72				
				Mean	**0.19**	**1.78**				
VP	2	AOO	0	1	0.35	1.09	NA	NA	NA	NA
				2	0.30	0.93				
				3	0.34	1.05				
				4	0.30	0.93				
				Mean	**0.32**	**1.00**				
PC[2]	2	AOO	0	1	0.30	0.93	NA	NA	NA	NA
				2	0.38	1.17				
				3	0.50	1.53				
				4	0.49	1.53				
				Mean	**0.42**	**1.29**				
VS	2	AOO	0	1	0.21	0.70	NA	NA	NA	NA
				2	0.33	1.06				
				3	0.35	1.14				
				4	0.34	1.10				
				Mean	**0.31**	**1.00**				
Hexyl cinnamic aldehyde[2]	2	AOO	10	1	0.41	1.33	20.96	27.90	NC	NC
				2	0.43	1.39				
				3	0.36	1.17				
				4	0.42	1.37				
				Mean	**0.40**	**1.31**				
			25	1	0.45	1.47				
				2	0.57	1.84				
				3	0.54	1.77				
				4	0.37	1.19				
				Mean	**0.48**	**1.57**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Hexyl cinnamic aldehyde (continued)	2	AOO	50	1	0.49	1.61				
				2	0.66	2.14				
				3	0.52	1.71				
				4	0.58	1.88				
				Mean	**0.56**	**1.83**				
Isopropanol[2]	2	AOO	10	1	0.35	1.13	NC	NC	NC	NC
				2	0.39	1.27				
				3	0.27	0.87				
				4	0.33	1.07				
				Mean	**0.33**	**1.09**				
			25	1	0.31	1.02				
				2	0.24	0.77				
				3	0.11	0.36				
				4	0.38	1.23				
				Mean	**0.26**	**0.85**				
			50	1	0.24	0.78				
				2	0.25	0.81				
				3	0.36	1.16				
				4	0.17	0.55				
				Mean	**0.25**	**0.83**				
VP	2	AOO	0	1	0.14	1.06	NA	NA	NA	NA
				2	0.13	0.99				
				3	0.12	0.94				
				4	0.13	1.01				
				Mean	**0.13**	**1.00**				
PC	2	AOO	0	1	0.50	3.82	NA	NA	NA	NA
				2	0.61	4.62				
				3	0.66	5.01				
				4	0.94	7.14				
				Mean	**0.68**	**5.15**				
VS	2	AOO	0	1	0.13	0.74	NA	NA	NA	NA
				2	0.13	0.72				
				3	0.22	1.23				
				4	0.23	1.30				
				Mean	**0.18**	**1.00**				
2, 4-Dinitrochlorobenzene	2	AOO	0.1	1	1.06	5.96	0.010*	0.011*	0.017*	0.019*
				2	1.09	6.13				
				3	1.31	7.35				
				4	1.09	6.12				
				Mean	**1.14**	**6.39**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
2, 4-Dinitrochlorobenzene (continued)	2	AOO	0.3	1	0.94	5.26				
				2	1.10	6.18				
				3	1.30	7.28				
				4	1.32	7.39				
				Mean	**1.16**	**6.53**				
			1	1	1.32	7.42				
				2	1.49	8.38				
				3	1.53	8.60				
				4	1.62	9.07				
				Mean	**1.49**	**8.37**				
trans-Cinnamaldehyde	2	AOO	1	1	0.18	0.99	1.71	1.88	2.42	2.59
				2	0.17	0.94				
				3	0.24	1.34				
				4	0.20	1.14				
				Mean	**0.20**	**1.10**				
			3	1	0.35	1.95				
				2	0.39	2.16				
				3	0.48	2.71				
				4	0.37	2.10				
				Mean	**0.40**	**2.23**				
			10	1	0.54	3.05				
				2	0.56	3.12				
				3	0.59	3.30				
				4	0.71	4.00				
				Mean	**0.60**	**3.37**				
VP	2	AOO	0	1	0.20	1.16	NA	NA	NA	NA
				2	0.16	0.89				
				3	0.15	0.87				
				4	0.19	1.07				
				Mean	**0.17**	**1.00**				
PC	2	AOO	0	1	0.44	2.55	NA	NA	NA	NA
				2	0.49	2.83				
				3	0.40	2.32				
				4	0.41	2.37				
				Mean	**0.44**	**2.52**				
VS	2	AOO	0	1	0.22	1.26	NA	NA	NA	NA
				2	0.11	0.61				
				3	0.22	1.26				
				4	0.15	0.87				
				Mean	**0.17**	**1.00**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Eugenol	2	AOO	10	1	0.24	1.40	12.50	13.80	17.80	19.08
				2	0.24	1.38				
				3	0.18	1.01				
				4	0.25	1.46				
				Mean	**0.23**	**1.31**				
			25	1	0.31	1.79				
				2	0.47	2.75				
				3	0.44	2.57				
				4	0.46	2.69				
				Mean	**0.42**	**2.45**				
			50	1	0.52	3.01				
				2	0.50	2.91				
				3	0.56	3.26				
				4	0.60	3.47				
				Mean	**0.55**	**3.17**				
Methyl salicylate	2	AOO	10	1	0.20	1.13	NC	NC	NC	NC
				2	0.22	1.26				
				3	0.16	0.93				
				4	0.19	1.12				
				Mean	**0.19**	**1.11**				
			25	1	0.20	1.14				
				2	0.20	1.17				
				3	0.23	1.34				
				4	0.17	1.00				
				Mean	**0.20**	**1.16**				
			50	1	0.28	1.65				
				2	0.19	1.12				
				3	0.27	1.58				
				4	0.24	1.41				
				Mean	**0.25**	**1.44**				
VP	3	AOO	0	1	0.25	1.05	NA	NA	NA	NA
				2	0.29	1.21				
				3	0.14	0.59				
				4	0.28	1.14				
				Mean	**0.24**	**1.00**				
PC	3	AOO	0	1	0.68	2.82	NA	NA	NA	NA
				2	1.01	4.21				
				3	0.65	2.70				
				4	0.87	3.63				
				Mean	**0.80**	**3.34**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
VS	3	AOO	0	1	0.21	0.93	NA	NA	NA	NA
				2	0.17	0.78				
				3	0.21	0.97				
				4	0.29	1.32				
				Mean	**0.22**	**1.00**				
Methyl salicylate	3	AOO	10	1	0.23	1.06	NC	NC	NC	NC
				2	0.34	1.54				
				3	0.13	0.59				
				4	0.27	1.21				
				Mean	**0.24**	**1.10**				
			25	1	0.39	1.78				
				2	0.24	1.07				
				3	0.12	0.54				
				4	0.32	1.46				
				Mean	**0.27**	**1.21**				
			50	1	0.26	1.18				
				2	0.47	2.15				
				3	0.18	0.79				
				4	0.33	1.49				
				Mean	**0.31**	**1.40**				
2, 4-Dinitrochlorobenzene	3	AOO	0.1	1	0.77	3.50	0.022	0.023	0.027	0.029
				2	0.81	3.69				
				3	0.98	4.44				
				4	1.20	5.45				
				Mean	**0.94**	**4.27**				
			0.3	1	1.28	5.82				
				2	1.35	6.13				
				3	1.31	5.96				
				4	1.57	7.11				
				Mean	**1.38**	**6.26**				
			10	1	1.26	5.71				
				2	1.28	5.82				
				3	1.30	5.90				
				4	1.44	6.52				
				Mean	**1.32**	**5.99**				
VP	3	AOO	0	1	0.26	1.26	NA	NA	NA	NA
				2	0.20	1.00				
				3	0.15	0.73				
				4	0.21	1.01				
				Mean	**0.20**	**1.00**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
PC	3	AOO	0	1	0.77	3.77	NA	NA	NA	NA
				2	1.01	4.96				
				3	0.52	2.53				
				4	0.59	2.89				
				Mean	**0.72**	**3.54**				
VS	3	AOO	0	1	0.36	1.34	NA	NA	NA	NA
				2	0.18	0.67				
				3	0.32	1.20				
				4	0.21	0.79				
				Mean	**0.27**	**1.00**				
Hexyl cinnamic aldehyde	3	AOO	10	1	0.48	1.79	15.23	17.00	22.20	23.95
				2	0.35	1.33				
				3	0.23	0.85				
				4	0.22	0.84				
				Mean	**0.32**	**1.20**				
			25	1	0.55	2.06				
				2	0.72	2.72				
				3	0.30	1.14				
				4	0.62	2.32				
				Mean	**0.55**	**2.06**				
			50	1	0.57	2.13				
				2	1.01	3.82				
				3	0.64	2.42				
				4	0.83	3.14				
				Mean	**0.76**	**2.87**				
Isopropanol	3	AOO	10	1	0.30	1.14	NC	NC	NC	NC
				2	0.35	1.31				
				3	0.13	0.50				
				4	0.26	0.97				
				Mean	**0.26**	**0.98**				
			25	1	0.27	1.01				
				2	0.28	1.06				
				3	0.16	0.61				
				4	0.20	0.73				
				Mean	**0.23**	**0.85**				
			50	1	0.21	0.79				
				2	0.29	1.08				
				3	0.13	0.47				
				4	0.17	0.64				
				Mean	**0.20**	**0.75**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
VP	3	DMSO	0	1	0.33	1.04	NA	NA	NA	NA
				2	0.42	1.32				
				3	0.18	0.56				
				4	0.34	1.08				
				Mean	**0.32**	**1.00**				
PC	3	DMSO	0	1	0.67	2.10	NA	NA	NA	NA
				2	0.94	2.98				
				3	0.60	1.90				
				4	0.55	1.72				
				Mean	**0.69**	**2.18**				
VS	3	DMSO	0	1	0.18	0.83	NA	NA	NA	NA
				2	0.28	1.25				
				3	0.15	0.67				
				4	0.27	1.24				
				Mean	**0.22**	**1.00**				
Lactic acid	3	DMSO	10	1	0.20	0.90	20.98	23.70	NC	NC
				2	0.35	1.57				
				3	0.17	0.77				
				4	0.25	1.12				
				Mean	**0.24**	**1.09**				
			25	1	0.45	2.05				
				2	0.46	2.07				
				3	0.21	0.97				
				4	0.34	1.53				
				Mean	**0.37**	**1.65**				
			50	1	0.40	1.83				
				2	0.63	2.84				
				3	0.21	0.97				
				4	0.35	1.56				
				Mean	**0.40**	**1.80**				
Nickel sulfate	3	DMSO	1	1	0.33	1.48	1.47	1.84	2.93	3.85
				2	0.48	2.19				
				3	0.14	0.61				
				4	0.27	1.22				
				Mean	**0.30**	**1.37**				
			3	1	0.43	1.93				
				2	0.61	2.75				
				3	0.26	1.19				
				4	0.40	1.81				
				Mean	**0.42**	**1.92**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Nickel sulfate (continued)	3	DMSO	10	1	0.70	3.16				
				2	0.64	2.91				
				3	0.42	1.92				
				4	0.52	2.34				
				Mean	**0.57**	**2.58**				
VP	4	AOO	0	1	0.23	0.81	NA	NA	NA	NA
				2	0.21	0.74				
				3	0.33	1.19				
				4	0.35	1.26				
				Mean	**0.28**	**1.00**				
PC	4	AOO	0	1	0.83	2.95	NA	NA	NA	NA
				2	0.71	2.54				
				3	0.76	2.71				
				4	0.72	2.56				
				Mean	**0.76**	**2.69**				
VS	4	AOO	0	1	0.22	0.80	NA	NA	NA	NA
				2	0.25	0.91				
				3	0.36	1.32				
				4	0.26	0.97				
				Mean	**0.27**	**1.00**				
2, 4-Dinitrochlorobenzene	4	AOO	0.1	1	1.04	3.83	0.022	0.023	0.028	0.030
				2	1.05	3.87				
				3	0.88	3.23				
				4	1.06	3.90				
				Mean	**1.01**	**3.71**				
			0.3	1	1.43	5.27				
				2	1.38	5.10				
				3	1.44	5.30				
				4	1.49	5.50				
				Mean	**1.43**	**5.29**				
			1	1	1.43	5.27				
				2	1.54	5.68				
				3	1.47	5.43				
				4	1.52	5.62				
				Mean	**1.49**	**5.50**				
trans-Cinnamaldehyde	4	AOO	1	1	0.60	2.21	0.95	1.04	1.48	1.63
				2	0.22	0.80				
				3	0.38	1.41				
				4	0.51	1.86				
				Mean	**0.43**	**1.57**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
trans-Cinnamaldehyde (continued)	4	AOO	3	1	0.80	2.94				
				2	0.86	3.15				
				3	0.70	2.59				
				4	0.83	3.07				
				Mean	**0.80**	**2.94**				
			10	1	0.89	3.28				
				2	1.12	4.11				
				3	0.77	2.85				
				4	1.01	3.73				
				Mean	**0.95**	**3.50**				
VP	4	AOO	0	1	0.26	1.16	NA	NA	NA	NA
				2	0.24	1.08				
				3	0.19	0.84				
				4	0.21	0.92				
				Mean	**0.22**	**1.00**				
PC	4	AOO	0	1	0.50	2.25	NA	NA	NA	NA
				2	0.89	3.99				
				3	0.55	2.44				
				4	0.90	4.00				
				Mean	**0.71**	**3.17**				
VS	4	AOO	0	1	0.40	1.65	NA	NA	NA	NA
				2	0.22	0.92				
				3	0.17	0.72				
				4	0.17	0.71				
				Mean	**0.24**	**1.00**				
Isopropanol	4	AOO	0.1	1	0.19	0.78	45.10	NC	NC	NC
				2	0.09	0.37				
				3	0.24	0.99				
				4	0.44	1.83				
				Mean	**0.24**	**0.99**				
			0.25	1	0.58	2.41				
				2	0.11	0.46				
				3	0.22	0.92				
				4	0.26	1.06				
				Mean	**0.29**	**1.21**				
			0.5	1	0.19	0.78				
				2	0.53	2.21				
				3	0.52	2.15				
				4	0.28	1.15				
				Mean	**0.38**	**1.57**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Hexyl cinnamic aldehyde	4	AOO	10	1	0.58	2.39	4.07	4.80	7.92	9.36
				2	0.40	1.67				
				3	0.62	2.57				
				4	0.36	1.51				
				Mean	**0.49**	**2.04**				
			25	1	0.66	2.73				
				2	0.65	2.69				
				3	0.61	2.54				
				4	0.58	2.40				
				Mean	**0.63**	**2.59**				
			50	1	0.99	4.11				
				2	0.83	3.45				
				3	0.78	3.25				
				4	0.61	2.54				
				Mean	**0.80**	**3.34**				
VP	4	DMSO	0	1	0.05	0.32	NA	NA	NA	NA
				2	0.23	1.48				
				3	0.20	1.28				
				4	0.14	0.92				
				Mean	**0.15**	**1.00**				
PC	4	DMSO	0	1	1.04	6.75	NA	NA	NA	NA
				2	1.08	7.01				
				3	1.07	6.92				
				4	0.86	5.60				
				Mean	**1.01**	**6.57**				
VS	4	DMSO	0	1	0.16	0.75	NA	NA	NA	NA
				2	0.11	0.51				
				3	0.29	1.36				
				4	0.29	1.38				
				Mean	**0.21**	**1.00**				
Lactic acid	4	DMSO	10	1	0.24	1.13	3.43	5.71	NC	NC
				2	0.47	2.25				
				3	0.28	1.34				
				4	0.44	2.11				
				Mean	**0.36**	**1.71**				
			25	1	0.33	1.56				
				2	0.45	2.14				
				3	0.34	1.63				
				4	0.47	2.24				
				Mean	**0.40**	**1.89**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Lactic acid (continued)	4	DMSO	50	1	0.44	2.11				
				2	0.37	1.78				
				3	0.26	1.22				
				4	0.30	1.41				
				Mean	**0.34**	**1.63**				
Nickel sulfate	4	DMSO	1	1	0.35	1.66	0.48*	0.57*	0.86*	0.95*
				2	0.44	2.10				
				3	0.35	1.65				
				4	0.59	2.78				
				Mean	**0.43**	**2.05**				
			3	1	0.29	1.39				
				2	0.34	1.63				
				3	0.48	2.30				
				4	0.56	2.66				
				Mean	**0.42**	**2.00**				
			10	1	0.94	4.45				
				2	0.70	3.32				
				3	0.71	3.36				
				4	1.47	6.98				
				Mean	**0.95**	**4.53**				
VP	5	ACE	0	1	0.04	0.29	NA	NA	NA	NA
				2	0.15	1.17				
				3	0.07	0.52				
				4	0.25	2.01				
				Mean	**0.13**	**1.00**				
PC	5	ACE	0	1	1.40	11.10	NA	NA	NA	NA
				2	0.64	5.05				
				3	2.37	18.78				
				4	1.87	14.87				
				Mean	**1.57**	**12.45**				
VS	5	ACE	0	1	0.05	0.94	NA	NA	NA	NA
				2	0.01	0.19				
				3	0.11	2.07				
				4	0.04	0.81				
				Mean	**0.05**	**1.00**				
Formaldehyde	5	ACE	1	1	0.13	2.52	0.15*	0.19*	0.28*	0.31*
				2	0.27	5.01				
				3	0.06	1.15				
				4	0.44	8.26				
				Mean	**0.23**	**4.23**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Formaldehyde (continued)	5	ACE	3	1	0.07	1.26				
				2	0.12	2.18				
				3	0.08	1.56				
				4	0.09	1.63				
				Mean	**0.09**	**1.66**				
			10	1	0.54	10.22				
				2	0.30	5.60				
				3	0.85	16.02				
				4	1.84	34.52				
				Mean	**0.88**	**16.59**				
Gluteraldehyde	5	ACE	0.001	1	0.22	4.17	0.031	0.031	0.033	0.034
				2	0.29	5.37				
				3	0.20	3.66				
				4	0.88	16.47				
				Mean	**0.40**	**7.42**				
			0.003	1	0.22	4.09				
				2	0.97	18.22				
				3	0.51	9.56				
				4	1.06	19.87				
				Mean	**0.69**	**12.93**				
			0.01	1	1.65	30.93				
				2	0.98	18.40				
				3	1.77	33.31				
				4	1.70	31.91				
				Mean	**1.53**	**28.64**				
VP	5	AOO	0	1	0.05	0.30	NA	NA	NA	NA
				2	0.18	1.13				
				3	0.13	0.79				
				4	0.29	1.78				
				Mean	**0.16**	**1.00**				
PC	5	AOO	0	1	0.61	3.76	NA	NA	NA	NA
				2	0.82	5.10				
				3	0.91	5.61				
				4	0.40	2.47				
				Mean	**0.68**	**4.24**				
VS	5	AOO	0	1	0.09	0.61	NA	NA	NA	NA
				2	0.17	1.15				
				3	0.18	1.19				
				4	0.16	1.05				
				Mean	**0.15**	**1.00**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
2, 4-Dinitrochlorobenzene	5	AOO	0.1	1	2.56	17.07	0.0022	0.0022	0.0024	0.0025
				2	1.96	13.07				
				3	2.21	14.74				
				4	2.24	14.92				
				Mean	**2.24**	**14.95**				
			0.3	1	2.72	18.14				
				2	2.79	18.61				
				3	2.90	19.35				
				4	2.86	19.08				
				Mean	**2.82**	**18.80**				
			1	1	2.77	18.45				
				2	2.67	17.79				
				3	2.21	14.74				
				4	2.51	16.76				
				Mean	**2.54**	**16.94**				
trans-Cinnamaldehyde	5	AOO	1	1	0.12	0.78	1.75	1.96	2.58	2.79
				2	0.08	0.56				
				3	0.28	1.85				
				4	0.21	1.38				
				Mean	**0.17**	**1.14**				
			3	1	0.40	2.69				
				2	0.28	1.87				
				3	0.28	1.87				
				4	0.30	1.98				
				Mean	**0.32**	**2.10**				
			10	1	0.57	3.79				
				2	0.50	3.34				
				3	0.70	4.66				
				4	0.70	4.65				
				Mean	**0.62**	**4.11**				
VP	5	AOO	0	1	0.16	1.41	NA	NA	NA	NA
				2	0.04	0.33				
				3	0.08	0.73				
				4	0.17	1.52				
				Mean	**0.11**	**1.00**				
PC	5	AOO	0	1	0.69	6.17	NA	NA	NA	NA
				2	0.58	5.15				
				3	0.90	8.02				
				4	0.55	4.90				
				Mean	**0.68**	**6.06**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
VS	5	AOO	0	1	0.04	0.63	NA	NA	NA	NA
				2	0.08	1.48				
				3	0.03	0.62				
				4	0.07	1.27				
				Mean	**0.06**	**1.00**				
Isopropanol	5	AOO	10	1	0.09	1.56	NC	NA	NC	NC
				2	0.04	0.74				
				3	0.05	0.92				
				4	0.03	0.52				
				Mean	**0.05**	**0.94**				
			25	1	0.05	0.92				
				2	0.02	0.43				
				3	0.03	0.52				
				4	0.05	0.89				
				Mean	**0.04**	**0.69**				
			50	1	0.03	0.62				
				2	0.04	0.78				
				3	0.03	0.54				
				4	0.05	0.94				
				Mean	**0.04**	**0.72**				
Hexyl cinnamic aldehyde	5	AOO	10	1	0.44	7.89	3.54	3.64	3.96	4.07
				2	0.07	1.32				
				3	0.20	3.58				
				4	0.46	8.24				
				Mean	**0.29**	**5.26**				
			25	1	0.26	4.74				
				2	0.92	16.65				
				3	0.20	3.57				
				4	0.52	9.36				
				Mean	**0.47**	**8.58**				
			50	1	0.93	16.89				
				2	0.37	6.61				
				3	1.10	19.95				
				4	0.58	10.55				
				Mean	**0.75**	**13.50**				
VP	6	AOO	0	1	0.30	1.97	NA	NA	NA	NA
				2	0.08	0.55				
				3	0.15	0.99				
				4	0.07	0.49				
				Mean	**0.15**	**1.00**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
PC	6	AOO	0	1	0.66	4.40	NA	NA	NA	NA
				2	0.66	4.39				
				3	1.21	8.09				
				4	0.64	4.27				
				Mean	**0.79**	**5.29**				
VS	6	AOO	0	1	0.21	0.84	NA	NA	NA	NA
				2	0.13	0.53				
				3	0.37	1.47				
				4	0.29	1.16				
				Mean	**0.25**	**1.00**				
Hexyl cinnamic aldehyde	6	AOO	10	1	0.29	1.13	7.90	8.60	11.70	13.03
				2	0.48	1.91				
				3	0.33	1.32				
				4	0.70	2.76				
				Mean	**0.45**	**1.78**				
			25	1	0.67	2.66				
				2	0.57	2.25				
				3	1.04	4.12				
				4	0.62	2.47				
				Mean	**0.73**	**2.87**				
			50	1	1.37	5.41				
				2	0.59	2.31				
				3	0.53	2.10				
				4	NA	NA				
				Mean	**0.83**	**3.27**				
Isopropanol	6	AOO	10	1	0.88	3.48	4.81*	5.77*	8.65*	9.62*
				2	0.20	0.79				
				3	0.47	1.86				
				4	NA	NA				
				Mean	**0.52**	**2.04**				
			25	1	0.18	0.72				
				2	0.34	1.34				
				3	0.33	1.31				
				4	NA	NA				
				Mean	**0.28**	**1.12**				
			50	1	0.27	1.07				
				2	0.56	2.20				
				3	0.32	1.28				
				4	NA	NA				
				Mean	**0.38**	**1.52**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
VP	6	ACE	0	1	0.12	0.65	NA	NA	NA	NA
				2	0.25	1.36				
				3	0.16	0.90				
				4	0.20	1.09				
				Mean	**0.18**	**1.00**				
PC	6	ACE	0	1	0.37	2.04	NA	NA	NA	NA
				2	0.46	2.54				
				3	0.57	3.09				
				4	0.36	1.95				
				Mean	**0.44**	**2.40**				
VS	6	ACE	0	1	0.23	1.38	NA	NA	NA	NA
				2	0.11	0.69				
				3	0.13	0.81				
				4	0.18	1.12				
				Mean	**0.16**	**1.00**				
Gluteraldehyde	6	ACE	0.1	1	0.19	1.17	0.21	0.24	0.32	0.51
				2	0.14	0.85				
				3	0.17	1.06				
				4	0.15	0.89				
				Mean	**0.16**	**0.99**				
			0.3	1	0.40	2.42				
				2	0.31	1.88				
				3	0.31	1.88				
				4	0.22	1.37				
				Mean	**0.31**	**1.89**				
			1	1	0.36	2.20				
				2	0.42	2.58				
				3	0.30	1.87				
				4	0.38	2.34				
				Mean	**0.37**	**2.25**				
Formaldehyde	6	ACE	0.01	1	0.33	2.04	0.58	0.01	0.07	NC
				2	0.20	1.20				
				3	0.23	1.38				
				4	0.29	1.77				
				Mean	**0.26**	**1.60**				
			0.03	1	0.31	1.91				
				2	0.29	1.75				
				3	0.25	1.52				
				4	0.33	2.01				
				Mean	**0.29**	**1.80**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Formaldehyde (continued)	6	ACE	0.1	1	0.36	2.20				
				2	0.24	1.50				
				3	0.39	2.41				
				4	0.29	1.77				
				Mean	**0.32**	**1.97**				
VP	6	AOO	0	1	0.49	1.61	NA	NA	NA	NA
				2	0.20	0.66				
				3	0.26	0.84				
				4	0.27	0.89				
				Mean	**0.30**	**1.00**				
PC	6	AOO	0	1	0.68	2.24	NA	NA	NA	NA
				2	0.83	2.72				
				3	0.68	2.24				
				4	0.88	2.88				
				Mean	**0.77**	**2.52**				
VS	6	AOO	0	1	0.27	1.30	NA	NA	NA	NA
				2	0.14	0.69				
				3	0.24	1.15				
				4	0.18	0.86				
				Mean	**0.21**	**1.00**				
Eugenol	6	AOO	10	1	0.35	1.66	10.47	11.65	15.20	16.38
				2	0.27	1.27				
				3	0.28	1.33				
				4	0.33	1.57				
				Mean	**0.31**	**1.46**				
			25	1	0.99	4.72				
				2	0.52	2.48				
				3	0.38	1.83				
				4	0.40	1.90				
				Mean	**0.57**	**2.73**				
			50	1	0.67	3.18				
				2	0.87	4.13				
				3	0.64	3.04				
				4	0.50	2.36				
				Mean	**0.67**	**3.18**				
2, 4-Dinitrochlorobenzene	6	AOO	0.1	1	0.67	3.19	0.022	0.022	0.023	0.025
				2	0.76	3.61				
				3	0.68	3.25				
				4	0.74	3.50				
				Mean	**0.71**	**3.39**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
2, 4-Dinitrochlorobenzene (continued)	6	AOO	0.3	1	0.91	4.33				
				2	0.89	4.24				
				3	0.86	4.12				
				4	1.11	5.31				
				Mean	**0.94**	**4.50**				
			1	1	0.92	4.39				
				2	0.96	4.59				
				3	1.07	5.09				
				4	1.11	5.27				
				Mean	**1.01**	**4.83**				
VP	7	AOO	0	1	0.04	0.49	NA	NA	NA	NA
				2	0.15	1.71				
				3	0.08	0.93				
				4	0.08	0.87				
				Mean	**0.09**	**1.00**				
PC	7	AOO	0	1	0.69	7.71	NA	NA	NA	NA
				2	0.70	7.81				
				3	0.44	4.94				
				4	0.62	6.96				
				Mean	**0.61**	**6.85**				
VS	7	AOO	0	1	0.15	1.21	NA	NA	NA	NA
				2	0.08	0.69				
				3	0.16	1.30				
				4	0.10	0.81				
				Mean	**0.12**	**1.00**				
Hexyl cinnamic aldehyde	7	AOO	10	1	0.15	1.26	9.45	10.10	13.20	14.21
				2	0.23	1.90				
				3	0.17	1.44				
				4	0.21	1.78				
				Mean	**0.19**	**1.59**				
			25	1	0.26	2.19				
				2	0.40	3.33				
				3	0.34	2.81				
				4	0.46	3.86				
				Mean	**0.37**	**3.05**				
			50	1	0.33	2.78				
				2	0.81	6.69				
				3	0.51	4.20				
				4	0.20	1.70				
				Mean	**0.46**	**3.84**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Isopropanol	7	AOO	10	1	0.03	0.24	NC	NC	NC	NC
				2	0.03	0.25				
				3	0.11	0.93				
				4	0.06	0.50				
				Mean	**0.06**	**0.48**				
			25	1	0.13	1.04				
				2	0.08	0.69				
				3	0.10	0.84				
				4	0.15	1.25				
				Mean	**0.12**	**0.95**				
			50	1	0.05	0.38				
				2	0.11	0.89				
				3	0.28	2.32				
				4	0.05	0.43				
				Mean	**0.12**	**1.01**				
VP	7	AOO	0	1	0.10	1.14	NA	NA	NA	NA
				2	0.10	1.17				
				3	0.09	1.07				
				4	0.05	0.61				
				Mean	**0.09**	**1.00**				
PC	7	AOO	0	1	0.38	4.48	NA	NA	NA	NA
				2	0.35	4.15				
				3	0.32	3.80				
				4	0.43	5.12				
				Mean	**0.37**	**4.39**				
VS	7	AOO	0	1	0.15	1.21	NA	NA	NA	NA
				2	0.11	0.87				
				3	0.09	0.76				
				4	0.14	1.16				
				Mean	**0.12**	**1.00**				
Eugenol	7	AOO	10	1	0.33	2.70	3.51	3.77	4.70	5.06
				2	0.36	2.93				
				3	0.44	3.58				
				4	0.31	2.49				
				Mean	**0.36**	**2.93**				
			25	1	0.44	3.54				
				2	0.33	2.67				
				3	0.73	5.95				
				4	0.56	4.57				
				Mean	**0.51**	**4.18**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Eugenol (continued)	7	AOO	50	1	0.79	6.44				
				2	0.94	7.63				
				3	0.85	6.90				
				4	0.91	7.38				
				Mean	**0.87**	**7.09**				
2, 4-Dinitrochlorobenzene	7	AOO	0.1	1	0.71	5.74	0.049	0.050	0.053	0.053
				2	0.64	5.22				
				3	0.53	4.30				
				4	0.95	7.71				
				Mean	**0.71**	**5.74**				
			0.3	1	1.29	10.50				
				2	1.50	12.23				
				3	1.21	9.82				
				4	2.04	16.63				
				Mean	**1.51**	**12.29**				
			1	1	1.72	14.03				
				2	1.39	11.35				
				3	1.62	13.23				
				4	1.63	13.31				
				Mean	**1.59**	**12.98**				
VP	7	DMSO	0	1	0.08	0.67	NA	NA	NA	NA
				2	0.11	0.93				
				3	0.13	1.05				
				4	0.16	1.35				
				Mean	**0.12**	**1.00**				
PC	7	DMSO	0	1	0.45	3.68	NA	NA	NA	NA
				2	0.77	6.33				
				3	0.36	2.95				
				4	0.75	6.17				
				Mean	**0.58**	**4.78**				
VS	7	DMSO	0	1	0.08	0.54	NA	NA	NA	NA
				2	0.18	1.22				
				3	0.19	1.28				
				4	0.14	0.97				
				Mean	**0.15**	**1.00**				
Lactic acid	7	DMSO	10	1	0.19	1.30	14.58	16.16	20.90	22.47
				2	0.17	1.15				
				3	0.16	1.12				
				4	0.18	1.24				
				Mean	**0.18**	**1.21**				

Individual Animal Data for the LLNA: BrdU-ELISA – Kojima et al. 2008

Substance	Lab	Vehicle	Conc. (%)	Animal No.	ABS[1]	SI	EC1.5	EC1.6	EC1.9	EC2
Lactic acid (continued)	7	DMSO	25	1	0.25	1.70				
				2	0.27	1.83				
				3	0.39	2.67				
				4	0.36	2.45				
				Mean	**0.31**	**2.16**				
			50	1	0.48	3.34				
				2	0.26	1.78				
				3	0.25	1.73				
				4	0.48	3.28				
				Mean	**0.37**	**2.53**				
Nickel sulfate	7	DMSO	1	1	0.22	1.52	0.59	0.67	1.05	1.31
				2	0.31	2.14				
				3	0.31	2.12				
				4	0.25	1.73				
				Mean	**0.27**	**1.88**				
			3	1	0.55	3.77				
				2	0.38	2.65				
				3	0.39	2.66				
				4	0.23	1.57				
				Mean	**0.39**	**2.66**				
			10	1	0.23	1.59				
				2	0.43	2.95				
				3	0.33	2.30				
				4	0.55	3.79				
				Mean	**0.39**	**2.66**				

Abbreviations: ABS = absorbance; ACE = acetone; AOO = acetone: olive oil; Conc. = concentration; DMSO = dimethyl sulfoxide; EC = estimated concentration needed to produce a stimulation index of 1.5 (EC1.5), 1.6 (EC1.6), 1.9 (EC1.9), or 2 (EC2); LLNA: BrdU-ELISA = murine local lymph node assay with enzyme-linked immunosorbent assay detection of bromodeoxyuridine; NA = not applicable; NC = not calculated because the maximum SI was less than the decision criterion; No. = identification number; PC = positive control; SI = stimulation index; VP = vehicle for PC; VS = vehicle for test substance.

* Calculated using linear interpolation with SI =1, concentration =0 as the lowest point because the dose-response was nonmonotonic.

[1] Mean of 3 replicates

[2] Positive control failed because SI >2 was not achieved. Results from test substances associated with failed positive control were not considered in the accuracy and reproducibility analyses.