

The NZBWF1 Mouse Model of Systemic Lupus Erythematosus

Systemic Lupus Erythematosus (SLE) is an autoimmune inflammatory disease that affects mostly middle-aged women. Characteristics of SLE include skin eruptions, joint pain, recurrent pleurisy, and kidney disease. NZBWF1/J (Stock Number 100008) is a common mouse model of SLE, presenting lupus like phenotypes such as high levels of antinuclear antibodies, hemolytic anemia, proteinuria, and progressive immune complex glomerulonephritis (Perry et al. 2011). The objective of the study is to characterize the pathology of this mouse model and show its response to a common SLE therapy, cyclophosphamide.

Study Design

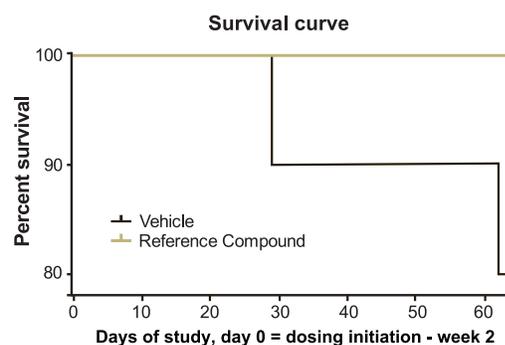
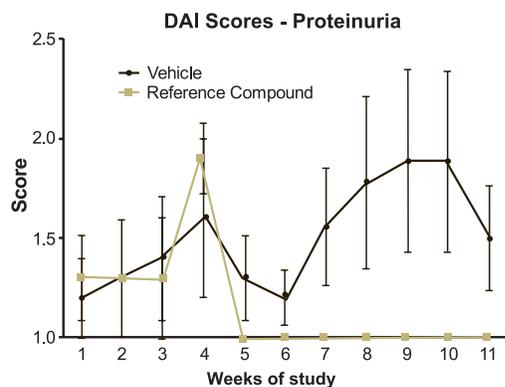
- Female NZBWF1/J mice (10 mice per arm)
- Proteinuria examination initiated at 25 weeks of age
- Dosing initiated at 26 weeks of age
- Body weights measured twice weekly; organ weights collected at study terminus
- Blood collections and serum chemistry throughout study
- Survival assessed by the righting reflex

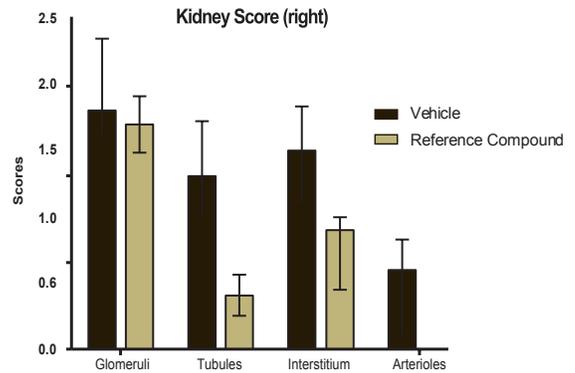
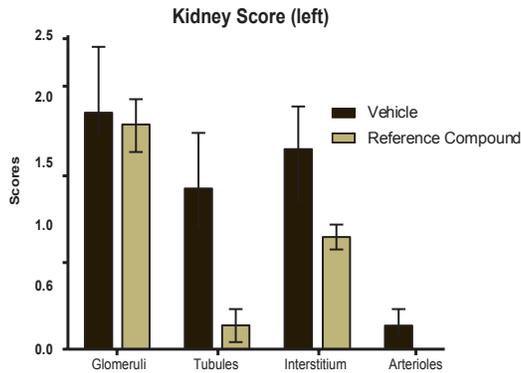
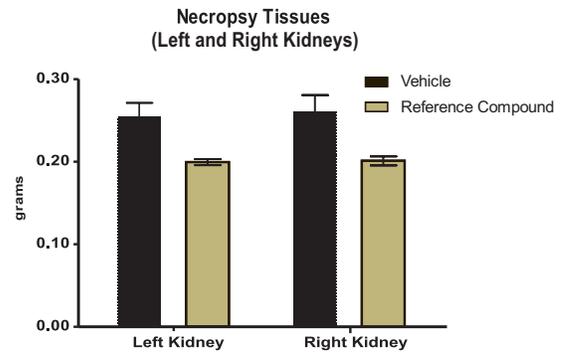
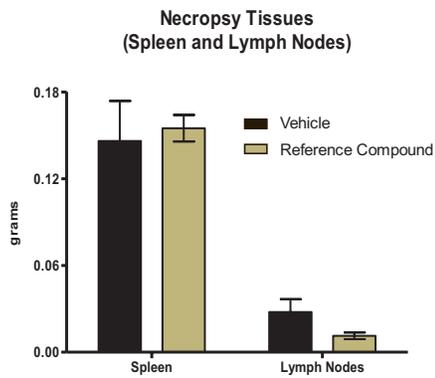
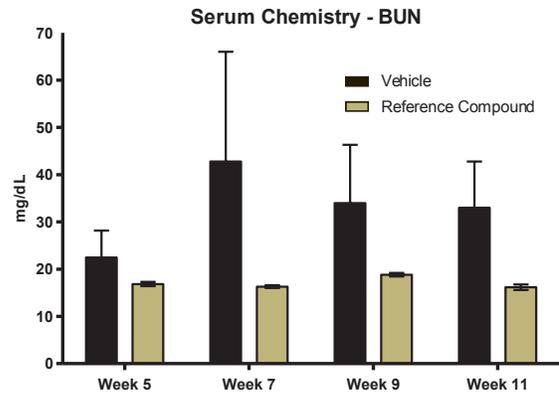
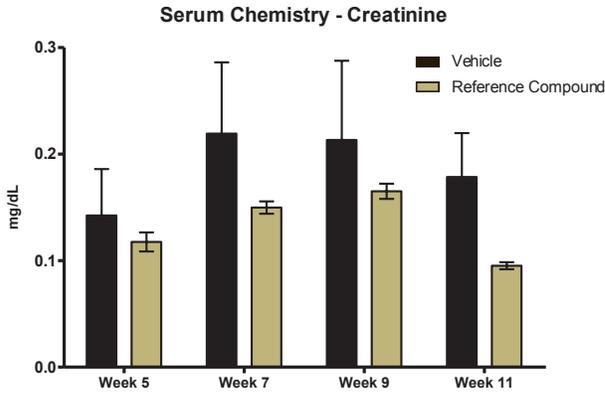
Experimental Timelines

Mouse age (wks)	15	16-24	25	26	27	28	29	30	31	32	33	34
Study week	Arrival	Acclimation	1	2	3	4	5	6	7	8	9	10
			Proteinuria examined weekly									
			↑ Dosing initiated			Serum chemistry every other week						

Representative Data

(error bars = SEM)





Reference

Perry D, et al. 2011. Murine models of systemic lupus erythematosus. *J Biomed Biotechnol* 2011:271694. [PubMed: 21403825]

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