Table 2. Correlation between bioluminescence and markers of neuronal injury and microglial activation

	Hippocampus		Cortex	
	R	*P*	*R*	*P*
Silver staining CA3	0.664	0.024	N.A.	
Synaptophysin	- 0.618	0.041	- 0.619	0.041
MAP-2	- 0.622	0.039	- 0.603	0.048
NeuN	- 0.781	0.003	- 0.487	0.132
Microgliosis (CD68)	0.900	< 0.0001	N.D.	
Astrogliosis (GFAP)	- 0.020	0.956	N.D.	

SBE-luc mice (T9-55F, *n* = 11) lesioned with kainate (30 mg/kg, s.c.) were killed 5 days after treatment. Bioluminescence was recorded in living mice injected with luciferin (150 mg/kg) before sacrifice and expressed as fold induction over baseline. Neuronal injury was evaluated by silver impregnation and immunolabeling for synaptophysin, MAP-2, and NeuN. Microglial activation was revealed by immunolabeling for CD68 and astrogliosis by GFAP. These markers were quantified separately in hippocampus and cortex by using image analysis software, and the correlation between these markers and bioluminescence was assessed by Pearson correlation analyses. *R*, correlation coefficient; N.A., not applicable; N.D., not done.