Supporting Information

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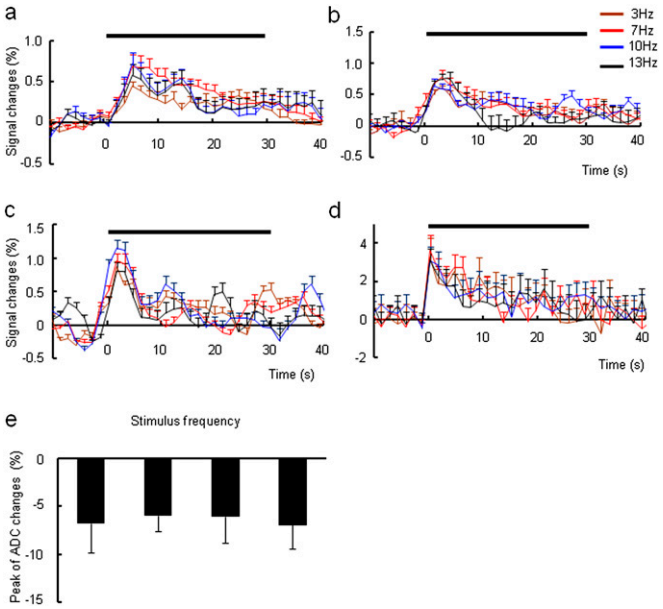

Fig. S1. Averaged (over animals and blocks) time courses for gradient echo (GE)-BOLD (*A*), spin echo (SE)-BOLD (*B*), DfMRI (*C*) and raw local field potentials (ΣLFPs) (*D*) recorded from a 3-, 7-, 10-, and 13-Hz forepaw electrical stimulation paradigm under 1.5% isoflurane anesthesia. Data were expressed as mean ± SEM. (*E*) apparent diffusion coefficient (ADC) changes at each frequency.

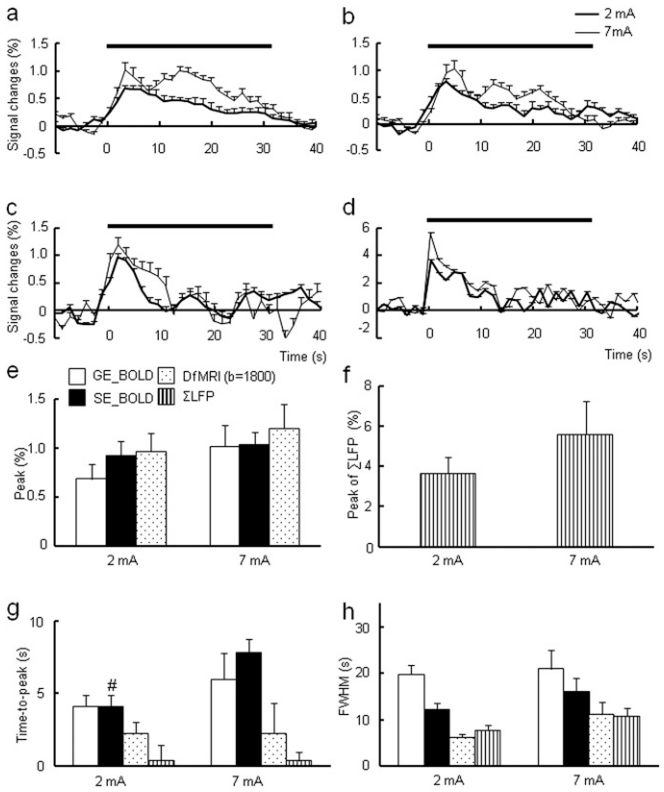

Fig. S2. Averaged (over animals and blocks) time courses for GE-BOLD (*A*), SE-BOLD (*B*), DfMRI (*C*), and ΣLFPs (*D*) recorded from a 7-Hz forepaw electrical stimulation paradigm under 1.5% isoflurane anesthesia at 2 and 7 mA. Data were expressed as mean ± SEM. (*E*) Peak value of BOLD, diffusion MRI (DfMRI) responses, and (*F*) ΣLFP, (*G*) time-to-peak of BOLD and DfMRI, (*H*) full width at half maximum (FWMH) of BOLD and DfMRI responses by the two stimulation intensities (2 and 7 mA); $^{*}P < 0.05$ compared with 7 mA.

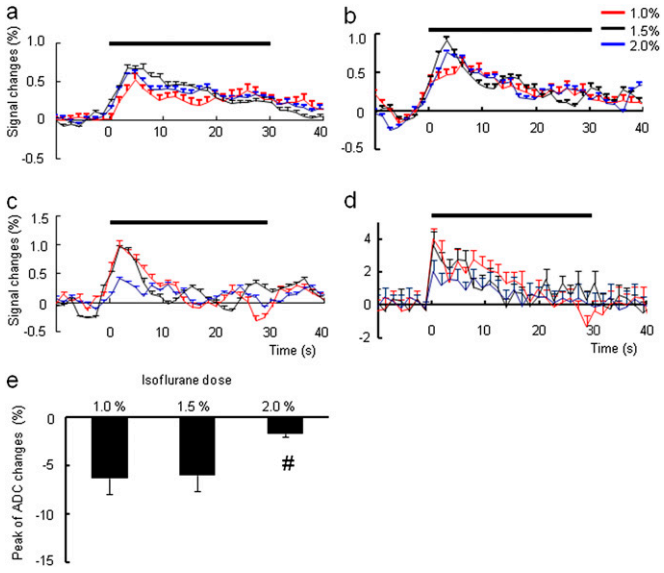

Fig. S3. Averaged (over animals and blocks) time courses for GE-BOLD (*A*), SE-BOLD (*B*), DfMRI (*C*), and LFPs (*D*) recorded from a 7-Hz forepaw electrical stimulation paradigm under 1.0%, 1.5%, and 2.0% isoflurane anesthesia. Data were expressed as mean ± SEM. (*E*) ADC changes at each isofluorane levels; $^{\#}P < 0.05$ compared with 1.0% and 1.5% isofluorane.

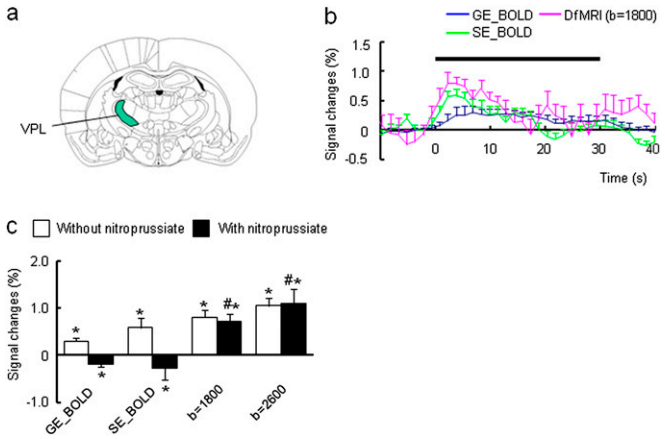

Fig. S4. (*A*) Location of the ventral posterolateral nucleus (VPL). (*B*) Averaged (over animals and blocks) time courses in the VPL for GE-BOLD, SE-BOLD, and DfMRI recorded from a 7-Hz forepaw electrical stimulation paradigm under 1.5% isoflurane anesthesia. Data were expressed as mean ± SEM. (*C*) Peak value of BOLD and DfMRI responses (b = 1,800 and 2,600) by 7-Hz electrical stimulation with and without nitroprussiate under 1.5% isoflurane levels; $^{*}P < 0.05$ compared with basal; $^{\#}P < 0.05$ compared with GE and SE. Statistical comparison between BOLD and DfMRI (all b value) was done using ANOVA and post hoc Tukey–Kramer test for group comparisons. The statistical comparison with the basal level was done using paired *t* test. Data were expressed as mean ± SEM.