

Publication

A supramodal network for response inhibition

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 1195255**Author(s)** Walther, Stephan; Goya-Maldonado, Roberto; Stippich, Christoph; Weisbrod, Matthias; Kaiser, Stefan**Author(s) at UniBasel** [Stippich, Christoph](#) ;**Year** 2010**Title** A supramodal network for response inhibition**Journal** NeuroReport**Volume** 21**Number** 3**Pages / Article-Number** 191-5**Keywords** functional magnetic resonance imaging, go-nogo task, prefrontal cortex, response inhibition, supramodal network

Response inhibition is the capacity to suppress inappropriate actions and is considered to be a fundamental executive function. This study investigated whether the neural correlates of response inhibition are organized along supramodal or modality-specific principles. For this purpose, we used event-related functional magnetic resonance imaging in a go-nogo task with auditory and visual stimuli. Common activation relating to response inhibition across modalities was observed in a frontoparietal network including the ventrolateral prefrontal cortex. In contrast, there was no modality-specific activation related to response inhibition in the prefrontal cortex. These findings suggest that the neural correlates of response inhibition have a supramodal organization, which is consistent with its role as a core executive function.

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