

Macaque auditory cortex

The organization of [pitch perception](#) mechanisms in the [primate cortex](#) is controversial, in that divergent results have been obtained, ranging from a single circumscribed 'pitch centre' to systems widely distributed across [auditory cortex](#). Possible reasons for such discrepancies include different species, recording techniques, pitch stimuli, sampling of auditory fields, and the neural metrics recorded. In the present study, we sought to bridge some of these divisions by examining activity related to pitch in both neurons and neuronal ensembles within the auditory cortex of the rhesus macaque, a primate species with similar pitch perception and auditory cortical organisation to humans. We demonstrate similar responses, in primary and non-primary auditory cortex, to two different types of broadband pitch above the macaque lower limit in both neurons and local field potential (LFP) gamma oscillations. The majority of broadband pitch responses in neurons and LFP sites did not show equivalent tuning for sine tones ¹⁾.

¹⁾

Kikuchi Y, Kumar S, Baumann S, Overath T, Gander PE, Sedley W, Patterson RD, Petkov CI, Griffiths TD. The distribution and nature of responses to broadband sounds associated with pitch in the macaque auditory cortex. *Cortex*. 2019 Jul 18;120:340-352. doi: 10.1016/j.cortex.2019.07.005. [Epub ahead of print] PubMed PMID: 31401401.

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