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# Quantitative Electrophysiological Monitoring of Anti-histamine Drug Effects on Live Cells via Reusable Sensor Platforms

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## ABSTRACT

We demonstrated the quantitative electrophysiological monitoring of histamine and anti-histamine drug effects on live cells via reusable sensor platforms based on carbon nanotube transistors. This method enabled us to monitor the real-time electrophysiological responses of a single HeLa cell to histamine with different concentrations. The measured electrophysiological responses were attributed to the activity of histamine type 1 receptors on a HeLa cell membrane by histamine. Furthermore, the effects of anti-histamine drugs such as cetirizine or chlorphenamine on the electrophysiological activities of HeLa cells were also evaluated

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