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A lysosome targetable fluorescent probe for palladium species detection base on an ESIPT phthalimide derivative

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Abstract

A novel lysosome-targetable phthalimide fluorescent probe was designed for detecting palladium based on ESIPT for signal transduction. The fluorescent probe conjugating with allylcarbamate displayed weak fluorescent due to the ESIPT process hinder by allylcarbamate. But with the addition of palladium, the ESIPT emission was recovery though the palladium-catalyzed deallylation reaction and the fluorescence intensity exhibited 40-fold enhancement at 511 nm. In addition, the probe showed excellent selectivity, high sensitivity, fast responds and low limit detection for

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