

研究论文

荧光法研究三种黄酮小分子与溶菌酶的相互作用

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摘要 用荧光光谱法研究了芹菜素(Quercetin)、木犀草素(Luteocin)、槲皮素(Quercetin)与溶菌酶的相互作用, 对比了C3'-OH和C3-OH取代对黄酮与溶菌酶作用的影响. 结果表明, C3'-OH可大大增强黄酮与溶菌酶之间的作用, C3-OH的取代则导致作用力减弱. 根据3种黄酮的结构参数, 初步分析了C3'-OH和C3-OH取代对黄酮与蛋白相互作用的影响.

关键词 [荧光光谱法](#) [溶菌酶](#) [芹菜素](#) [木犀草素](#) [槲皮素](#) [能量转移](#) [结构参数](#)

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Interaction Between Lysozyme and Three Flavones by Fluorescence Spectroscopy

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Abstract The interaction between lysozyme and three flavones, including Apigenin, Luteocin and Quercetin, were studied by fluorescence spectroscopy. The influence of C3-OH and C3'-OH on the interaction of flavones-Lys were compared. The results showed that C3'-OH could enhance the binding affinity greatly; while C3-OH weakened the affinity largely. According to the structure parameters of assay flavones, the effect of hydrogen group on the flavones-protein were discussed, and the main reason resulting in the weaker binding affinity of Quercetin-Lys were explored. The results obtained from the work could supply beneficial reference for the further study of Flavone-Protein interactions.

Key words [Fluorescence spectroscopy](#) [Lysozyme](#) [Apigenin](#) [Luteocin](#) [Quercetin](#) [Energy transfer](#) [Structure parameter](#)

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