β-lactams are the most widely drug prescribed against infections, but they are the most commonly reported medication allergy too. A correct diagnosis of these allergic reactions is crucial to avoid rejecting them by other more expensive broad-spectrum antibiotics, with potential risk factors for the development of multiple drug-resistant bacteria.[1] Skin testing is the most consensual approach to diagnose β-lactam allergy, but this in vivo test is not risky free and should be performed under strict hospital surveillance.[2] In vitro testing is not still widely used on account of their low sensitivity. We report the use of already haptenized fluorescent dendrimers [3] to control the preparation of materials for in vitro test, and their verification by testing on patient sera samples. This fluorescent dendrimer is obtained from a dye with two orthogonal functional groups suitable for click chemistry. [4]

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REFERENCES


FIGURES

Figure 1: Toward the synthesis of a fluorescent macromolecular carrier from a model with two orthogonal functional groups able to react through two different click chemistry reactions.