

**내부표준물질, 9-hydroxypyrene을 이용한
뇨 중 1-hydroxypyrene의 새로운 정량법**

**A New Analytic Method for Quantification of Urinary
1-Hydroxypyrene with internal standard, 9-Hydroxypyrene**

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Urinary 1-hydroxypyrene (1-OHP) has been used as exposure biomarkers for polycyclic aromatic hydrocarbons and analyzed with HPLC/FD after preparation by column extraction or simple centrifuge. However, the above methods have several drawbacks such as high noise or large volume of urine. In this study, we developed a new analysis method with liquid-liquid extraction and purification of commercial enzymes. We analyzed urinary 1-OHP in 27 spot urines of a subject in 3 weeks with the new method. As result, we could analyze all 27 samples clearly. The resolution of the new method was better than the previous centrifuge method. Therefore, the new method is a recommendable analysis method for urinary 1-OHP. Considering both of easiness and accuracy of the experiments, the new method should be further compared with the previous methods.