DETERMINATION OF BOTH JA AND MEJA IN *ARABIDOPSIS* USING SPE EXTRACTION AND LC-MS-MS DETECTION

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An efficient protocol was developed for the determination of both jasmonic acid (JA) and methyl jasmonate (MeJA) in fresh arabidopsis samples using solid phase extraction (SPE) and liquid chromatography tandem mass spectrometry (LC-MS-MS) detection. It was found that accuracy was improved by using parallel standard for the correction of JA and MeJa losses during sample preparation. Amount of fresh sample needed reduced to 100mg minimum. The detection limits of JA and MeJA were 0.03 ng/mL and 0.075ng/ML respectively, and the average recovery rate of JA and MeJA were 92.48% and 94.30% respectively. The method is reproducible and selective enough to yield a single peak for each target compound, avoiding time-consuming regular liquid phase extraction (LPE) or ion exchange column chromatography extraction processes.