

## **Abstract**

**Study of genetic variation in plant populations, are bases and foundation for any breeding research. Radish is an annual herb which is used as a vegetable. It is cultivated throughout the continental climates to an altitude of 16,000 feet in the temperate countries. Medically, almost all parts of the plant contain leaves, seeds (grains) and its roots are used as drug. Molecular markers are known as important tools to identify genetic similarity and population genetics studies. Among them, Rtrotransposons are the important ones. In this study, REMAP (Rtrotransposons-microsatellite amplified polymorphism) used to identify Rtrotransposons and genetic diversity of ten cultivars and line radish (*Raphanus sativus*) of Iranian and foreign. The CTAM method was used to extract the DNA. The under consider cultivars accompanied with 36 pairs of Rtrotransposon initiators (6 initiatos of IRAP and 6 ISSR primers) were analyzed and PCR results was loaded on an agarose gel. The presence or absence of bands was scored with 1 and 0 respectively. The Mantel test was used to determine the correlation between similarity matrix and Cofentic coefficient which was find to be  $r=0.99$ . Principal component analysis reveals that of three components in total 85% accounts for the total variance .**

**Keywords: Medicinal Plants, radishes, genetic diversity, REMAP**



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using REMAP**

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