

# Screening of Some Bean Cultivars and Breeding Lines for Resistance to *Bean common mosaic virus* (BCMV) and *Bean common mosaic necrosis virus* (BCMNV) in Turkey

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## Abstract

A total of 62 bean genotypes involving registered snap and dry bean cultivars, local populations and breeding lines were tested for the presence of known resistance genes and resistance levels to BCMV and BCMNV by phenotypic evaluations, quantitative ELISA method and DNA markers linked to resistance genes. It was shown that thirty-four genotypes tested involve dominant the *I* gene, and seven and three genotypes contain *bc-2*<sup>2</sup> and *bc-1*<sup>2</sup> genes, respectively. The SCAR (Sequence Characterized Amplified Region) marker SW-13 linked to the *I* gene showed consistency with phenotypic evaluations in almost all genotypes. In conclusion, it was revealed that the genotypes involving dominant the *I* gene and recessive *bc-2*<sup>2</sup> gene might be used for breeding resistant cultivars when considering the presence of the most virulent strains of BCMV (NL-4) and BCMNV (NL-5) determined in Turkey during this study.