

## Isolation of genomic DNA from defatted oil seed residue of rapeseed (*Brassica napus*)

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**ABSTRACT.** A simple protocol for obtaining pure, restrictable and amplifiable megabase genomic DNA from oil-free seed residue of *Brassica napus*, an important oil seed plant, has been developed. Oil from the dry seeds was completely recovered in an organic solvent and quantified gravimetrically followed by processing of the residual biomass (defatted seed residue) for genomic DNA isolation. The isolated DNA can be cut by a range of restriction enzymes. The method enables simultaneous isolation and recovery of lipids and genomic DNA from the same test sample, thus allowing two independent analyses from a single sample. Multiple micro-scale oil extraction from the commercial seeds gave approximately 39% oil, which is close to the usual oil recovery from standard oil seed. Most of the amplified fragments were scored in the range of 2.5 to 0.5 kb, best suited for scoring as molecular diagnostics.

**Key words:** Genomic DNA; Lipids; *Brassica napus* seeds; PCR; RAPD; Restriction analysis