

Oligogalacturonate Hydrolase from Carrot Roots

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Z. Naturforsch. **60c**, 899–905 (2005); received April 27/May 24, 2005

The presence of multiple forms of enzyme with terminal action pattern on pectate was evaluated in the protein mixture obtained from carrot roots. The form with pH optimum 3.8 clearly preferred substrates with a lower degree of polymerization (oligogalacturonates). Its molecular mass, isoelectric point, glycosylation as well as cleavage of pectate from nonreducing end corresponded to an exopolygalacturonase [EC 3.2.2.67]. The affinity of this enzyme to the substrates increased with the increasing degree of polymerization, and the difference was observed only in the maximal ratio of catalysis of oligomeric and polymeric substrates. Sterical hindrance for substrates with more than six D-galactopyranuronic acid units is supposed and an oligogalacturonate hydrolase rather than exopolygalacturonase is considered.

Key words: *Daucus carota*, Exopolygalacturonase, Oligogalacturonate Hydrolase