An α-L-rhamnosidase from *Penicillium greoroseum* MTCC-9424

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The α-L-rhamnosidase [EC.3.2.1.40] cleaves terminal α-L-rhamnose specifically from a number of rhamnosides and is widely distributed in nature. It has several potential applications and has been used for structural determination of biologically important glycosides, polysaccharides and glycolipids. It is also used for hydrolysis of rhamnosyl residues present in flavonoid glycosides such as naringin, hesperidin, rutin and quercetin. The hydrolysis of rutin and quercetin, the most common flavonoids glucosides in the human diet by bacterial α-L-rhamnosidase has been reported. There is also several technological application of α-L-rhamnosidase such as the removal of bitterness from citrus juices caused by naringin and hydrolysis of hesperidin by α-L-rhamnosidase to release L-rhamnose and hesperidin glucosides which is an important precursor in sweetener production. In addition, there is an industrial interest in α-L-rhamnosidase for their action towards terpenyl glucosides in the application of enhancing aroma in grape juices and derived beverages. The enzymes with different properties suit the different biotechnological applications. For example α-L-rhamnosidase having pH optimum in 3-4 pH unit ranges are more suitable for debittering of citrus fruit juices which also have their pHs in the range 3-4 pH units. The enzymes with pH optima near neutral range are more suitable for the aroma enhancement of wine. Thus there is a biotechnological need to purify α-L-rhamnosidases from different sources and to study their properties so that α-L-rhamnosidases suitable for different biotechnological applications could be identified. In this communication, we report α-L-rhamnosidase from the culture filtrate of *Penicillium greoroseum* MTCC-9424 and have accessed its properties for different biotechnological applications.

Biography

Sarita Yadav has completed her PhD degree from the Deen Dayal Upadhyay Gorakhpur University, Gorakhpur and Postdoctoral studies (DST-WOSA Scheeme) from the same University. She is currently UGC-Postdoctoral Women Fellow. She has published more than 11 papers in reputed national and international journals.

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