

Purification of TGF- β 1 from Bovine Colostrum

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Bovine colostrum contains various bio-functional proteins. Especially, transforming growth factor- β 1(TGF- β 1) has concerns with immune response. The purpose of this study is to establish purification processing of transforming growth factor(TGF- β 1). The highest concentration of TGF- β 1 was measured within 48 h after parturition in bovine colostrum using ELISA kit. Purification of TGF- β 1 from whey protein was carried out by the gel filtration, AF-heparin chromatography and AF-heparin rechromatography. After final purification step, TGF- β 1 with a molecular weight of 25 kD was obtained, which were confirmed by silver staining and western blotting. Finally, TGF- β 1 was identified native form of 25 kD and reducing form of 12.5 kD by reducing agent.