

Monoclonal Antibodies against Common Salivary Protein 1

Hong-Tao Wang, Stephanie Ho, Eun-Seon Yoon and Eui-Yul Choi

Department of Biomedical Science, Hallym University, Republic of Korea

Background: Saliva is mainly secreted by three pairs of salivary glands (parotid gland, sublingual gland and submandibular gland) and flows into oral cavity through ducts. Saliva contains around 100~140 kinds of protein, and common salivary protein 1(CSP1) is one of them. Methods: Here the recombinant CSP1 (rCSP1) was expressed and purified with GST agarose resin. The purified rCSP1 was used to immunize mouse to produce monoclonal antibodies (MAbs).

Results: The CSP1 in saliva was identified as one form which size was about 25kDa with MAbs. Immunohistochemical assay showed that the CSP1 was specifically localized in salivary glands rather than other organs including exocrine glands such as pancreas, prostate, adrenal, and thyroid. The mean concentration of CSP1 in saliva is 19.6 (11.7) $\mu\text{g/ml}$, which may show some correlation between the concentration of CSP1 and the possibility of developing dental caries. Conclusion: The monoclonal antibodies were successfully made and could be used to identify that CSP1 was exclusively localized in salivary glands.

wanght9969@sohu.com