

## Introducing and Authentication a new cell line-derived from Human Dental Pulp Stem cell, highly sensitive to Different Virus Strains



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### Abstract

In this study, we introduced a new cell line isolated from Human Dental Pulp stem cell .This stem cell derived tissue culture continuously passaged after differentiation, well characterized, authenticated, and inoculated by different viruses. Its sensitivity to various viruses was evaluated in compare of another human cell as gold standard.

**Material and Method:** Different sample of Human Stem Cell from Milky Dental Pulp tissue, were surveyed for this research. After deriving the stem cell, differentiated and authenticated. The first seven endpoints (cloning, cell viability, Isoenzyme assay, species identification and evaluation of cross contamination by using PCR and RFLP-PCR and STR for the new differentiated cell line .The results were extracted and analysed in compare of MRC-5 and Vero as control positive. The result is discussed in detail in this article for this new stem cell derived continuous line. Viral sensitivity studied by inoculating the virus then its adaptation was confirmed by Heamadsorption, the cytopathogenic appearance of the virus or immunofluorescent testing.

In this article, the isolation and establishment of a new Stem cell derived cell line, highly sensitive to Different Virus Strains cell line are presented. This cell substrate made possible the isolation and detection of viral strains, helped in the laboratory development of new Rabies and varicella vaccines and provided a cell lines to ensure the quality and reproducibility of these biological, leading to increased professional use as a tool for viral diagnostics. The analysis revealed that the isolated stem cell derived /human cell Substrate was not contaminated with adventitious agents and were sensitive to a different panel of viruses (Rabies, varicella zoster, Measles, Rubella, Poliomyelitis).

**Keywords:** Stem cell, Dental Pulp, cell lines, Human, RHDP, Authentication, sensitivity

### Biography

Ashraf Mohammadi currently works at the Human viral vacine (HVV), Razi Vaccine and Serum Research Institute. He has done research in Clinical Virology, Immunology and Vaccinology, Vaccine production, Microbiology. Their current project is 'virology'.



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