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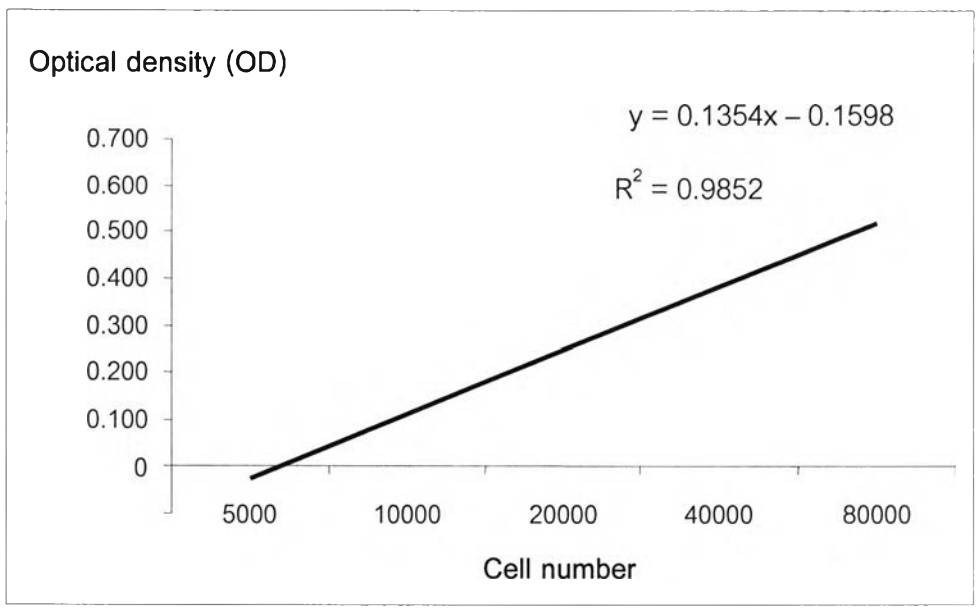
APPENDICES

Table 2: The effect of fluocinolone acetonide on human dental pulp cell proliferation at 24, 48 and 72 hours reported as optical density measured by MTT assay

Concentrations of fluocinolone acetonide (μM)	Optical density (Mean ± S.D.)		
	24 hours	48 hours	72 hours
50	0.291 ± 0.024	0.312 ± 0.028	0.317 ± 0.002
10	0.337 ± 0.017	0.333 ± 0.020	0.394 ± 0.019
1	0.346 ± 0.025	0.359 ± 0.017	0.419 ± 0.016
0.1	0.334 ± 0.024	0.391 ± 0.023	0.460 ± 0.012
Control (Serum free medium)	0.318 ± 0.008	0.322 ± 0.006	0.352 ± 0.025

Figure 7: A standard curve of number of viable human dental pulp cells examined by MTT assay



$$\text{Number of viable cells} = \frac{(\text{O.D.} + 0.1598) \times 10^4}{0.1354}$$

Table 3: The effect of fluocinolone acetonide on relative amount of type I collagen synthesis by human dental pulp cells, examined by Western blot analysis at 5 days

ครั้งที่	Concentrations			
	Control	0.1	1	10
1	100	151.31	176.76	184.71
2	100	125.65	232.79	202.43
3	100	136.88	287.83	196.19
Mean	**100**	**137.947**	**232.460**	**194.443**
SD	0	7.427	32.064	5.189

Table 4: The data from Western blotting was analyzed by Shapiro-Wilk test in order to test of normality for further statistical analysis. The data of all groups were within normal distribution when the significant level was more than 0.05.

Tests of Normality

Shapiro-Wilk test

GROUP	Statistic	df	Sig.
0.1	0.9948427	3	0.86273
1	0.9999735	3	0.99017
10	0.9716772	3	0.67705

Table 5: The data from Western blotting was tested by Levene statistic to test of homogeneity of variances between groups for further statistical analysis. The variances of data were not different when the significant level was more than 0.05.

Test of Homogeneity of Variances

WB

Levene Statistic	df1	df2	Sig.
3.002	3	8	.095

Table 6: The data from Western blotting was analyzed by One-way ANOVA to compare means among different 3 groups. The data was statistically significant difference at the confidence level of 95%.

ANOVA

WB

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31106.29	3	10368.764	12.453	.002
Within Groups	6660.936	8	832.617		
Total	37767.23	11			

Table 7: The data from Western blotting was analyzed by Scheffe test to perform all pairwise comparisons between 2 different groups. The data was statistically significant difference when the significant level was less than 0.05. The results showed that group 3 (1 μM) and 4 (10 μM) were significant different from group 1 (control), and group 2 (0.1 μM) was significant different from group 3.

Multiple Comparisons

Dependent Variable: WB

Scheffe

(I) GROUP	(J) GROUP	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-37.9467	23.5601	.498	-120.2336	44.3403
	3	-132.4600*	23.5601	.004	-214.7469	-50.1731
	4	-94.4433*	23.5601	.026	-176.7303	-12.1564
2	1	37.9467	23.5601	.498	-44.3403	120.2336
	3	-94.5133*	23.5601	.026	-176.8003	-12.2264
	4	-56.4967	23.5601	.205	-138.7836	25.7903
3	1	132.4600*	23.5601	.004	50.1731	214.7469
	2	94.5133*	23.5601	.026	12.2264	176.8003
	4	38.0167	23.5601	.496	-44.2703	120.3036
4	1	94.4433*	23.5601	.026	12.1564	176.7303
	2	56.4967	23.5601	.205	-25.7903	138.7836
	3	-38.0167	23.5601	.496	-120.3036	44.2703

*. The mean difference is significant at the .05 level.

Table 8: The effect of fluocinolone acetonide on relative amount of type I collagen mRNA expression by human dental pulp cells, examined by RT-PCR at 48 hours

ครั้งที่	RT-PCR	
	Control	1 μM
1	100	302.84
2	100	313.79
3	100	239.03
Mean	**100.00**	**285.22**
SD	0.000	40.375

Table 9: The data from RT-PCR was analyzed by Shapiro-Wilk test in order to test of normality for further statistical analysis. The data was within normal distribution when the significant level was more than 0.05.

Tests of Normality

Shapiro-Wilk test

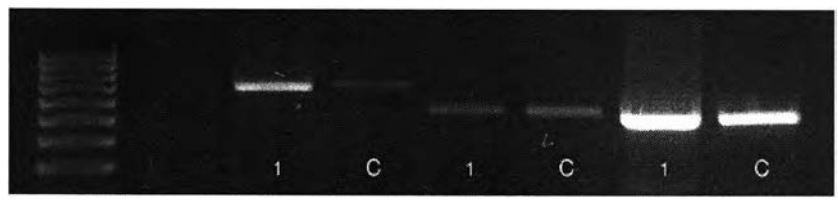
RT	Statistic	df	Sig.
1 μM	0.8571582	3	0.25979

Table 10: The data from RT-PCR was analyzed by t test to perform pair wise comparison between 2 different groups. The results showed statistically significant difference between 1 μM fluocinolone acetonide and control groups.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
RT	Equal variances assumed	13.692	.021	-7.946	4	.001	-185.2200	23.3103	-249.9398	-120.5002
	Equal variances not assumed			-7.946	2.000	.015	-185.2200	23.3103	-285.5162	-84.9238

Figure 8: The expression of integrin receptors of human dental pulp cells at 48 hours cultured with 1 μM fluocinolone acetonide. The expression of α_1 and β_1 integrin receptors seem to higher than in control. (1 = 1 μM fluocinolone acetonide, C = control, α_1 = α_1 integrin receptor, α_2 = α_2 integrin receptor, β_1 = β_1 integrin receptor)



α_1 α_2 β_1

Author's Biography

Mr. Phumisak Louwakul was born in August 25, 1976 in Bangkok, Thailand. He graduated from Faculty of Dentistry, Chiang Mai University in 2000. He worked at Sirindhorn College of Public Health, Trang from 2000 to 2001, and the Department of Restorative Dentistry, Faculty of Dentistry, Chiang Mai University from 2002 until now. By the grant of **Co-operative Research Network (CRN)**, he started his postgraduate study for the Master Degree of Science in Endodontology, Faculty of Dentistry, Chulalongkorn University.