



KIDS-BCK063-NSP

Clinical Study Report

A Clinical Study of 'GLUTANEX Deo Glow Balm' on the (Compared to the Control Group) 24 Hours Armpit Odor Relief Effect and Improvement of Skin Brightening (Tone)

Date : January 5, 2024

Requested by : Nexus Pharma Co., Ltd. (Korea)

Performed by : Korea Institute of Dermatological Sciences (Korea)



Korea Institute of
Dermatological Sciences

CERTIFICATE FOR RELIABILITY ASSURANCE



Title of the clinical study : A clinical study of 'GLUTANEX Deo Glow Balm' on the (compared to control group) 24 hours armpit odor relief effect and improvement of skin brightening (tone)

Case control No. : KIDS-BCK063-NSP

This study was conducted according to the regulations of designation as the test institution for drugs, quasi-drugs, cosmetics, and medical devices; the guidelines of the management standards for clinical drug evaluations; the guidelines of *in vivo* clinical and *in vitro* evaluation studies; the guidelines of the experimental methods for cosmetic display and advertisements; and the guidelines of the validation of functional cosmetics of the Ministry of Food and Drug Safety, Republic of Korea; the laws of the bioethics and safety of the Ministry of Health and Welfare, Republic of Korea; and the standard operation procedure of the Korea Institute of Dermatological Sciences. All procedures were investigated by the person in charge of reliability assurance.

Title of the clinical study	A clinical study of 'GLUTANEX Deo Glow Balm' on the (compared to control group) 24 hours armpit odor relief effect and improvement of skin brightening (tone)				
Date	Step	RA inspection categories	RA inspection result	Approval date	Note
November 28, 2023	Study plan	Reporting plan	Approved	November 28, 2023	
December 06, 2023 ~ December 07, 2023	Performing clinical trial (Measurement progress)	Reporting implementation	Approved	December 07, 2023	
December 08, 2023 ~ December 20, 2023	Analyzing data, Confirming the information on test product	Inspecting raw data	Approved	December 20, 2023	
December 21, 2023 ~ January 04, 2024	Report work	Inspecting draft report	Approved	January 04, 2024	
January 05, 2024	Report final report	Inspecting final report	Approved	January 05, 2024	

This report was prepared on the basis of the experiment results and accurately reflects the data.

January 5, 2023

Scientific Director In Sook An, Ph. D. (seal)

Reliability Assurance Ka Ram Kim, Ph. D. (seal)

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SUMMARY OF THE CLINICAL STUDY



Title of the clinical study	A clinical study of 'GLUTANEX Deo Glow Balm' on the (compared to control group) 24 hours armpit odor relief effect and improvement of skin brightening (tone)	
Clinical trial institution	Korea Institute of Dermatological Sciences 6th Floor, Tower A, 25, Beobwon-ro 11-gil, Songpa-gu, Seoul, 05836, Republic of Korea	
Sponsor	Nexus Pharma Co., Ltd.	
Chief researcher	In Sook An, Ph.D.	
Researcher	Seungbin Kwon, Yun Kim, Minji Jo, Hyunkyung Kim, Yunjin Hwang, Soyeon Park, Heeyoung Ko, Hyunjung Ahn, Chaelee Park, Miji Kim, Myeongsun Kim	
Name of the test material	GLUTANEX Deo Glow Balm	
Trial period	November 28, 2023 (Study initiation) ~ January 5, 2024 (Study termination) For the study initiation, the person in charge of the study signed the clinical study proposal; for the study termination, the person in charge of the study signed the final report.	
Trial period (Measurement period)	December 6, 2023 (First date of visit) ~ December 7, 2023 (End date of measurement)	
Inclusion criteria	Male and female volunteers over thirty years old who met the inclusion criteria and were not included in the exclusion criteria with an odor intensity rating of 3 or higher through sensory evaluation by two expert panels on a scale of 0-5 were selected for this study. * Expert panel : Researchers who are sensitive to odors and skilled in sensory evaluation who have completed at least 2 credits (24 hours) of training courses related to cosmetic fragrances.	
The age and number of subjects who completed the final study	Twenty two subjects from thirty two to sixty five (Average 50.73, Standard deviation 8.37) of either sex	
Methods	Usage of test material	The same investigator applied the same amount of test material 'GLUTANEX Deo Glow Balm' evenly on the left armpit area of all subjects and allowed it to be fully absorbed.
	Evaluations	The evaluations were conducted by Standard Operating Procedures of KIDS and all of the procedures were investigated by the person in charge of reliability assurance.

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Methods	Evaluations	<p>1. Measurements</p> <p>1) Evaluation of (compared to control group) 24 hour armpit odor relief effect</p> <p>① Sensory evaluation according to Evaluation Criteria for Grading Axillary Odor by two expert panelists to assess the (compared to control group) 24 hour armpit odor relief effect</p> <p>② Evaluation of odor relief effect using a survey</p> <p>2) Evaluation using SkinColorCatch to assess the skin brightening (tone) improvement</p> <p>2. Evaluation of abnormal skin response</p> <p>3. General survey</p>																																					
Results	<p>1. The evaluation of (compared to control group) 24 hours armpit odor relief effect</p> <p>1) The evaluation results of (compared to control group) 24 hours armpit odor relief effect according to Evaluation Criteria for Grading Axillary Odor by two expert panelists</p> <table border="1" data-bbox="453 916 1382 1079"> <thead> <tr> <th>Percent change (%)</th> <th>After 1 time use</th> <th>After 24 hours</th> </tr> </thead> <tbody> <tr> <td>Test group</td> <td>90.45</td> <td>64.97</td> </tr> <tr> <td>Control group</td> <td>-2.56</td> <td>-24.36</td> </tr> </tbody> </table> <p>2) The evaluation results of odor relief effect using a survey</p> <table border="1" data-bbox="453 1160 1382 1267"> <thead> <tr> <th>Average</th> <th>Before</th> <th>After 1 time use</th> <th>After 24 hours</th> </tr> </thead> <tbody> <tr> <td>Degree of odor</td> <td>3.55</td> <td>2.68</td> <td>1.59</td> </tr> </tbody> </table> <table border="1" data-bbox="453 1308 1382 1556"> <thead> <tr> <th>Average</th> <th>Before</th> <th>After 1 time use</th> <th>After 24 hours</th> </tr> </thead> <tbody> <tr> <td>Level of depression</td> <td>6.00</td> <td>3.55</td> <td>1.41</td> </tr> <tr> <td>Level of distraction</td> <td>5.86</td> <td>3.73</td> <td>1.27</td> </tr> <tr> <td>Level of anger</td> <td>6.23</td> <td>3.82</td> <td>1.18</td> </tr> </tbody> </table> <p>2. The evaluation results of skin brightening (tone) using SkinColorCatch</p> <table border="1" data-bbox="453 1637 1382 1747"> <thead> <tr> <th></th> <th>After 1 time use</th> </tr> </thead> <tbody> <tr> <td>Improvement rate (%)</td> <td>1.40</td> </tr> </tbody> </table> <p>3. Subjects' abnormal skin responses were not detected during the trial period.</p>		Percent change (%)	After 1 time use	After 24 hours	Test group	90.45	64.97	Control group	-2.56	-24.36	Average	Before	After 1 time use	After 24 hours	Degree of odor	3.55	2.68	1.59	Average	Before	After 1 time use	After 24 hours	Level of depression	6.00	3.55	1.41	Level of distraction	5.86	3.73	1.27	Level of anger	6.23	3.82	1.18		After 1 time use	Improvement rate (%)	1.40
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Conclusion	In the study requested by Nexus Pharma Co., Ltd., 'GLUTANEX Deo Glow Balm' was found to be helpful with relieving (compared to control group) 24 hour armpit odor and improving skin brightening (tone).
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