

NEUROGENIC INFLAMMATION



Reducing Neurogenic-inflammation in the skin

# RHODIOLA EXTRACT

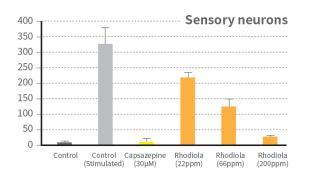
ADAPTOGENIC

INCI NAME : CYCLODEXTRIN / RHODIOLA ROSEA ROOT EXTRACT

# GENERAL DESCRIPTION FOR RAW MATERIAL

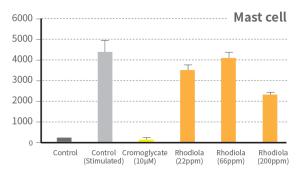
Rhodiola rosea is a plant in the Crassulaceae family that grows in cold regions of the world. These include much of the Arctic, the mountains of Central Asia, the Rocky Mountains, and mountainous parts of Europe<sup>[1]</sup>. In Korea, it grows on the rocks in high rise mountains in central or more northern part of the country. Rhodiola rosea may be effective for improving mood and alleviating depression. Pilot studies on human subjects<sup>[2][3][4]</sup> showed it improves physical and mental performance, and may reduce fatigue.

1.Rhodiola rosea - Plants For A Future database report". www.pfaf.org. Retrieved 2008-02-23.. 2.Shevtsov VA, Zholus BI, Shervarly VI, et al. (Mar 2003). 3.Darbinyan V, Kteyan A, Panossian A, Gabrielian E, Wikman G, Wagner H (Oct 2000). 4.Ha Z, Zhu Y, Zhang X, et al. (Sep 2002).



### EFFICACY

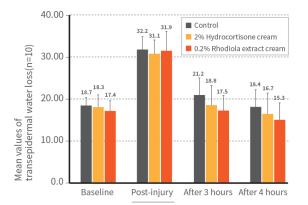
# Histamine release assay



# Clinical Test Result(Comparative test with hydrocortisone)

Skin barrier regeneration

Substance P release assay



#### Erythema reduction

Variation of the mean value of skin temperature(°C)

	No treatment	2% Hydrocortisone cream	0.2% Rhodiola extract cream
Post-injury	+1.25	+2.08	+2.12
After 3 hrs	-1.24	-1.61	-1.79
After 4 hrs	-1.42	-1.65	-1.85

\*Injury procedure

: 1 minute infrared lamp after 30 successive tape-stripping to remove layers of the stratum corneum

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# **TECHNICAL INFORMATION**

## Processing & Dosage

The recommended dosage is 0.05 ~ 0.2%. Rhodiola Extract is a water-soluble active ingredient. In order not to disturb the structure and conformation of the actives, it is recommended to incorporate it into formula at the last phase of the formulation at about 40°C.

# Storage & Shelf life

RHODIOLA EXTRACRT should be stored at room temperature in a tightly closed and lightproof package. If stored in these appropriate conditions the shelf life is at least 24 months. Once the original packing is opened, it is highly recommended to use at once.

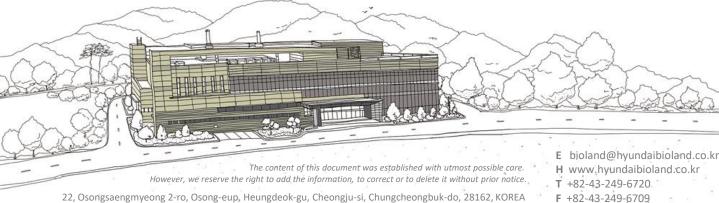
### Safety information

Rhodiola has been used in Traditional Chinese Medicine for a long time and it has more than 3000 years history of use as medicinal herb in European countries for adaptogenic effect. Based on its historical usage as food and medicine Rhodiola rosea is believed as a safe material for cosmetic use.

# **SPECIFICATION**

# PRODUCT INFORMATION

Appearance	Pale brown powder	TRADE NAME	RHODIOLA EXTRACT	INCI Key Index	
				A : Greater than 50%	
Odor	Typical	INCI NAME	COMPOSITION (INCI Key Index)	B : Greater than 25% but less than or equal to 50%	
	5.0 ~ 7.5mg/g	CYCLODEXTRIN	A	C : Greater than 10% but less than or equal to 25%	
Rosavin Content				D : Greater than 5% but less than or equal to 10%	
Total bacterial count	Not more than 100cfu/g	RHODIOLA ROSEA ROOT EXTRACT	В	E : Greater than 1% but less than or equal to 5%	
				F : Greater than 0.1% but less than or equal to 1%	
Yeast & molds	Not more than 10cfu/g	STANDARD PACKAGE	1KG/5KG	G : Less than or equal to 0.1%	



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