

Functional cosmetic ingredient
for total beauty

Rose Crysta (Rose petal extract) series

ROSE CRYSTA®-CO

ROSE CRYSTA®-CO is a functional cosmetic ingredient for total beauty, made of Rose petal extract by the hot water extraction and then purification.



Characteristics of ROSE CRYSTA®-CO

- Extracted from rose petal and then purified.
- Confirmed sunscreen effect
- Prevents wrinkles on the skin by inhibiting hyaluronidase, keep firmness of the skin, and suppresses skin inflammation caused by sunburn and the like.
- Confirmed antibacterial effects against *Staphylococcus aureus* and *Propionibacterium acnes* that cause acne.
- Confirmed antioxidant capacity (DPPH radical scavenging ability)
- Conformed the quasi-drug raw material standard 2021 "rose extract".

ROSE CRYSTA®-CO		Standard item	Standards	Test method
INCI	Composition ratio (%)	Appearance	Brown to dark brown liquid with characteristic odor	Sensory inspection
Rosa Centifolia Flower Extract	1.5			
Water	49.5	Identification test (1)	Liquid turns to red color	Japanese Standards of Quasi-drug Ingredients" Rose Extract" ※1
Butylene Glycol	49			
Standard packing	1kg brown bottle		Identification test (2)	Japanese Standards of Quasi-drug Ingredients" Rose Extract" ※2
Storage	Store in a dark place at room temperature			
		Heavy metals (as Pb)	Not more than 20ppm	JSQI general test method
		Arsenic (as As ₂ O ₃)	Not more than 2.0ppm	JSQI general test method
		Residue on drying	1.0~2.0%	Atmospheric heating drying method
		Aerobic plate count	Not more than 300cfu/ml	SCDLP agar culture method
		Coliform organisms	Negative	AOAC (Petriilm) method

※Chinese INCI : 洋蔷薇 (ROSA CENTIFOLIA) 花提取物

※1 Identification test (1)

Put 2mL of test sample into a test tube. Add 2mL of ethanol to the tube and, mix contents of the tube. Add 0.1g of magnesium ribbon and 1mL of hydrochloric acid. Heat and mix contents of the tube.

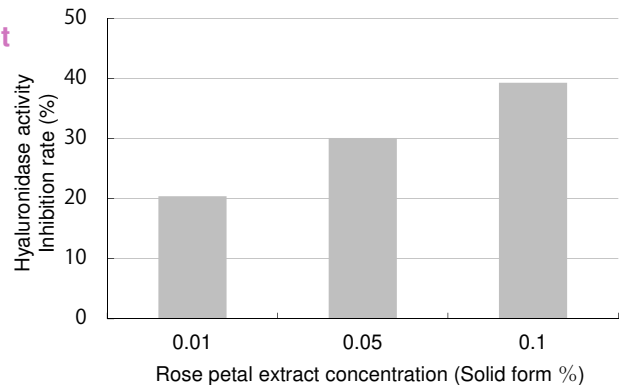
※2 Identification test (2)

Put 4mL of test sample into a test tube. Add 1 drop of ferric chloride and mix contents of the tube vigorously.

**(1)Effect to keep skin supple and moisturized
(Hyaluronidase inhibiting activity of Rose petal extract)**

Hyaluronic acid, which keeps skin supple and moisturized is decomposed by the enzyme hyaluronidase within our body.

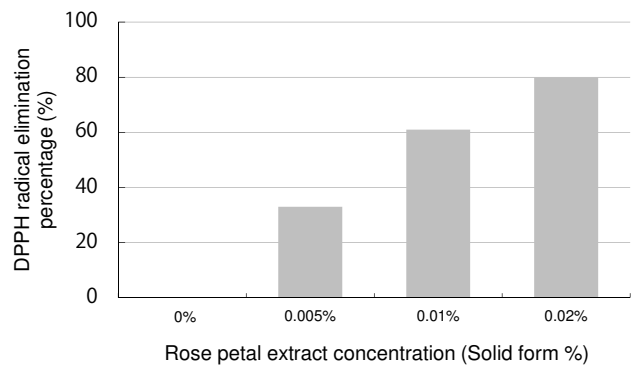
Rose petal extract inhibits this enzyme activity. Thanks to this inhibiting activity, the extract prevents wrinkles of skin and keeps it supple and moisturized. That enzyme is known to accelerate inflammation, therefore, inflammation caused by sunburn, etc. can be suppressed by the inhibiting activity.



**(2)Effect to protect skin from Active oxygen
(Antioxidative activity of Rose petal extract)**

The radical-scavenging activity of rose petal extract was evaluated and confirmed by its ability to scavenge the stable free DPPH radical.

This activity can protect skin from damaging & ageing caused by lipid oxidation of cells.



**(3)Effect to prevent acne
(Antibacterial activity of Rose petal extract against *Propionibacterium acnes*)**

Antibacterial activity against *Propionibacterium acnes* which causes acne was confirmed. It is stronger than that of the generally used disinfectants such as phytosphingosine and isopropylmethylphenol and is equivalent to triclosan (0.001%).

So rose petal extract was found effective against *Propionibacterium acnes*.

Diameter of growth inhibition zone (cm) by <i>Propionibacterium acnes</i>						
Concentration (%)	0.001	0.002	0.004	0.01	0.02	0.1
Rose petal extract	0.8					0.8
Phytosphingosine						ND
Isopropylmethylphenol						ND
Triclosan	0.8	1.5	2.5	3.3	4.0	5.3

The same level of anti-bacterial activity (indicated by an arrow between Rose petal extract and Triclosan at 0.001% concentration)

Stronger antibacterial activity than Rose petal extract (indicated by an arrow pointing to Triclosan at higher concentrations)

**(4)Sunscreen effect
(Ultraviolet ray prevention by rose polyphenol)**

To six subjects (one male and six females), lotion with ROSE CRYSTA®-CO (test) and that without it (control) was applied on the lower arm of each subject respectively, and then they stayed two days at the high UV index area.

The control parts are getting dark by 3.5 points in ΔL^* , whereas the test parts are getting dark only by 1.85 (Measurement data by the color difference meter).

This result shows that ROSE CRYSTA®-CO can protect skin from UV and the resultant suntan.

Its UV protection also prevents the decomposition of hyaluronic acid and collagen, which contributes to keep skin supple and to prevent its wrinkles.

