



From caper buds (*Capparis spinosa*), orange peel and juice (*Citrus sinensis*), olive leaves (*Olea europea*) and rice grains (*Oryza sativa*), Bionap has developed SKIN MOON®, a new combination of extracts with an high skin-whitening activity.

WHAT IT DOES

SKIN MOON® is able to inhibit skin melanogenesis, showing an activity similar to hydroquinone and higher than kojic acid and arbutin, ingredients currently used in skin-whitening products. Results are visible after four weeks of topical application (60% average inhibition of skin melanogenesis). SKIN MOON® is well tolerated by skin and **doesn't cause skin sensibility**, unlike other agents commonly used in skin depigmentation.

HOW TO USE

SKIN MOON® is used in formulations aimed at skin depigmentation. In contrast with other agents (hydroquinone and kojic acid), SKIN MOON® **can be applied during sun exposure** because it doesn't have a cutaneous photo-sensibilizing effect. Suggested dosage: 3-5% (w/w) in 3.5-6 pH range

Composition	SKIN MOON® % (w/w)
Capparis spinosa extract	15-20
Olive leaves extract	15-20
Red Orange extract	10
Oryza sativa extract	10
Maltodextrin (technological support)	40-50

SKIN WHITENING, SCIENTIFIC INVESTIGATIONS OF SKIN MOON® EFFECT

SKIN MOON® effect on skin-whitening was evaluated by different in vitro and in vivo experiments. Results obtained by in vitro

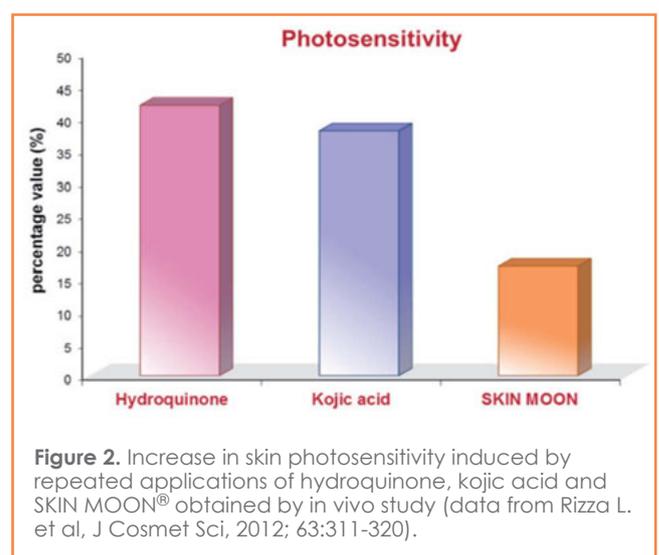
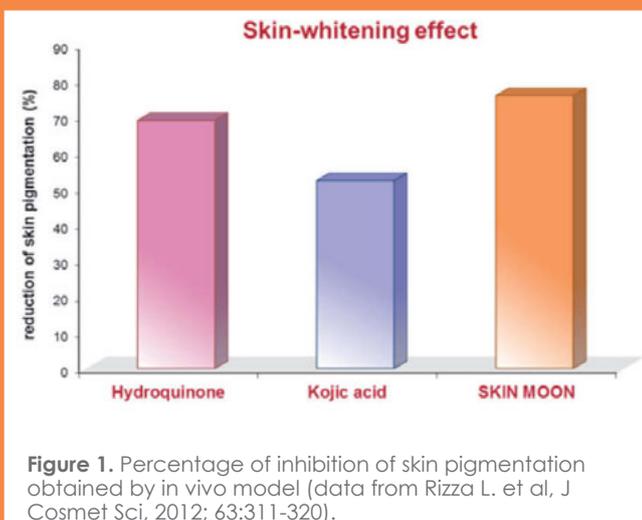
model showed that SKIN MOON® was able to induce a significant higher inhibition of tyrosinase activity than kojic acid and hydroquinone (SKIN MOON®=60.2%; kojic acid=43.7%; hydroquinone=30.2% at the same concentration of 50 µg/ml).

Moreover, in a *clinical trial* carried out by an objective instrumental technique (reflectance spectrophotometry), it was evaluated the inhibitory activity of SKIN MOON® topical application on skin melanogenesis induced by sun-light lamp exposure. In this study, skin-whitening effect of SKIN MOON® was similar to hydroquinone and more intensive than kojic acid (Figure1).

In addition, another in vivo model predicting skin photosensitizing effect induced by repeated topical applications was used in this study.

SKIN MOON®

A new blend
of Mediterranean extracts
for a safe and natural
skin-whitening effect



Results showed that hydroquinone and kojic acid produced more intensive skin sensitivity effects than SKIN MOON® (Figure 2).

REFERENCE

- Rizza L et al., Skin-whitening effects of Mediterranean herbal extracts by in vitro and in vivo models, *J Cosmet Sci*, 63:311-320 (2012).

BIONAP
Bioactive Natural Products

Via Badalà 6, 95010 S. Venerina (CT), Italia
Tel: +39 095 7086560
info@bionap.com
www.bionap.com