

Connecting**Chemistry**



让天然更高效
——**Nanovetores**微囊缓释护肤系列



■ Brenntag China

PCT

Jun. 2015

PORTFÓLIO AND PRESENCE

Nanovetores products portfolio is composed by capillary, facial, body and nails line featuring over 60 products offering the best solutions in micro and nanocapsules for your project.

*We also provide nano and microencapsulation services

Nanovetores拥有超过60种产品，为发丝、面部、身体、和指甲提供全面呵护，能为您的研发项目提供最优的纳米及微囊技术解决方案。

* 同时，我们也提供纳米及微囊包裹技术服务。





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NANOVETORES[®]
TECHNOLOGY

V.A.M.



Developed and patented Technology by
nanovetores with guaranteed
monodisperse particles.

The encapsulation protects the integrity
of the actives of interactions with
external agents. The V.A.M. technology
allows the release of the encapsulated
active through specific triggers release.

Its multifunctional capsules offer
additional benefits to the user.

V.A.M技术 (多功能活性物媒介)



V.A.M是由Nanovetores研发并注册的一项专利技术。它能够达到单分散体系颗粒。

利用微囊包裹能够避免活性物与外界因素发生相互作用，从而保障活性物的完整性。V.A.M技术能使被包裹的活性物在特定条件激发下破囊释放。

多效的微囊材质也能带给使用者更多益处。

CONTROL MORPHOLOGICAL

The morphological control of the capsules provides them specific characteristics such as prolonged release of the encapsulated active and also defines the trigger release.

The control happens on the surface and inside of the nanocapsules.

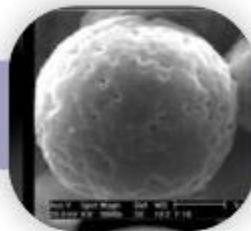
对微囊形态结构的控制可以赋予它精准的特性，如：控制微囊中活性物的缓慢释放，设定不同的破囊条件。

Nanovetores通过控制微囊的表面及内部结构，实现以上功能。



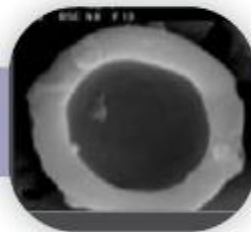
Occlusive Surface

封闭表层结构



Porous Surface

多孔表层结构



Vesicular Interior

泡状内部结构



Matrix Interior

矩阵内部结构

TRIGGERS RELEASE

The triggers release allow the actives to be released in specific situations to ensure a better use of active and provide increased effectiveness for the user.

破囊条件可以使活性物在特定环境下释放，从而保证活性物被更好地利用，为使用者带来更多的功效。

Tipos de gatilhos



TEMPERATURE
(THERMOACTIVATION)



WATER
CONTACT



ENZYMATIC
REACTION



PH
ALTERATION



FRICTION



OTHERS ENCAPSULATION
SYSTEMS



NANOVETORES
ENCAPSULATED

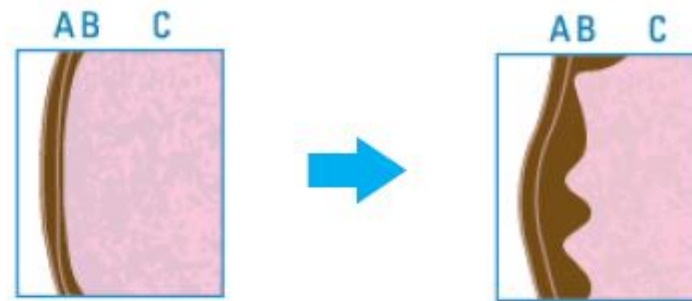
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Nanovetores与其他微囊技术的对比

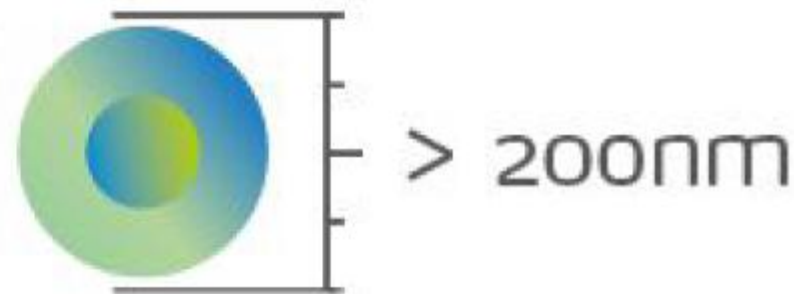
	BENEFITS	OTHER ENCAPSULATION SYSTEMS	ENCAPSULATED NANOVETORES	
	保护性：保护活性物不受外界环境影响，不发生氧化	●	●	
	减少剂量：合理减少活性物添加量，实现更好的分散性和更广的分散面积	●	●	
	去味：遮盖某些活性物的特殊气味	●	●	
	更深入的皮肤渗透性（纳米或者微囊）：提高微囊中活性物的作用效果	●	●	
	单分散性：保证所有微囊的安全性，以及更深入的渗透		●	
	表面电荷控制：有利于微囊与皮肤表面或发丝接触时的相互作用		●	
	有利生态环境：微囊颗粒保存于水性基料（不含有机溶剂）		●	
	延缓释放：在特定条件下破囊释放		●	
	多效微囊：除了包裹活性物，微囊本身都具有一定的保湿、融合等功效		●	
	更高的稳定性：在配方生产过程中及产品有效期内，微囊可以抵御搅拌对活性物的影响以及温度和pH值的改变		●	

**INCREASED
PERMEATION**



A - Stratum Corneum / B - Epidermis / C - Dermis

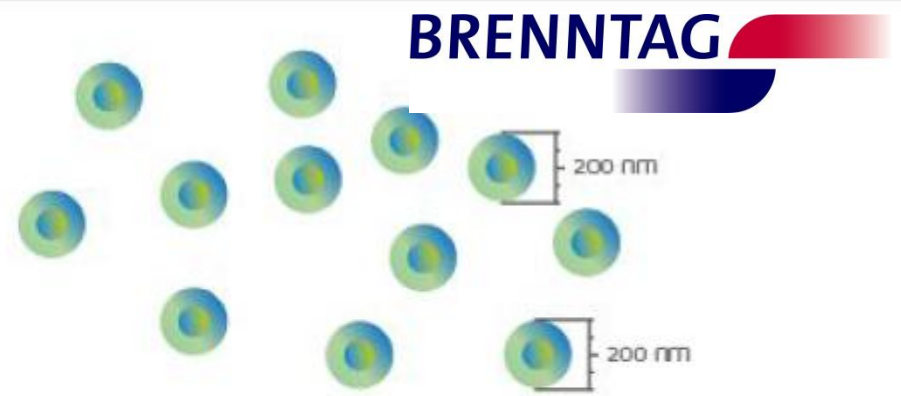
**SAFE
PARTICLES**



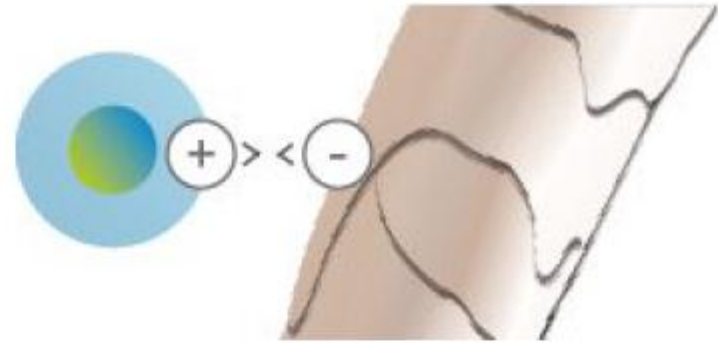
**ACTIVE
PROTECTION**



MONODISPERSITY



**SURFACE
CHANGE CONTROL**



**AQUEOUS
BASE**



NANOVETORES PRODUCTS

BRENN TAG 



NANO MILLENNIAL FACE

NANO千年古方驻颜精华



nanovetores
NATURALLY INNOVATIVE

BENEFITS

Promotes brightness with
lightening effect, renewing
cell, wrinkle and expression
lines reducer.

ACTIVE

Essential oils of Frankincense
and Palmarosa.

CLINICAL TEST



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V – CONCLUSÃO

Através do protocolo de estudo descrito neste relatório foi possível concluir que:

A aplicação do produto investigacional **CREME COM NANO FACE CARE 10%** por 7 dias consecutivos proporcionou aumento da renovação celular do estrato córneo significativamente superior a apresentada pelo controle (sem aplicação de quaisquer produtos).

Foi constatado que o percentual de renovação celular conferido pelo produto foi **18%** superior ao controle.

TRANSLATION

The application of the investigational product **CREAM WITH NANO FACE CARE** (Nano Millennial Face) for 7 consecutive days provided increased cell renewal of the stratum corneum significantly higher than that presented by the control (without application of any product).

It was found that the percentage of cell renewal provided by the product was **18%** higher than the control.

Evolve with Nano Millennial Face!

The meeting of ancient actives
with the latest technology!



NANO KOJIC ACID

NANO曲酸祛斑精华



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NATURALLY INNOVATIVE

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BENEFITS

Whitening and antiaging action. Indicated for the treatment of hiperchromies of the skin.

ACTIVE

Kojic Acid.

Discover the technological version of Kojic Acid!

Nano Kojic Acid promotes high efficacy and facility in the treatment of skin stains.



NANO UP LIFT

NANO提拉紧致精华



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BENEFITS

Versatile and multifunctional active developed with hyaluronic acid nanoparticles that promote immediate tightening effect and wrinkle filler. Increases firmness and skin elasticity by stimulating collagen production.

ACTIVES

Hyaluronic acid nanoparticles covered by Senegal Acacia.

BEFORE

AFTER 7 DAYS

UP to feel good about yourself!

*Contains Nano Up Lift, a nanotechnological active that stimulates collagen synthesis.



NANOVETOR **MELALEUCA**

NANO祛痘精华

BENEFITS

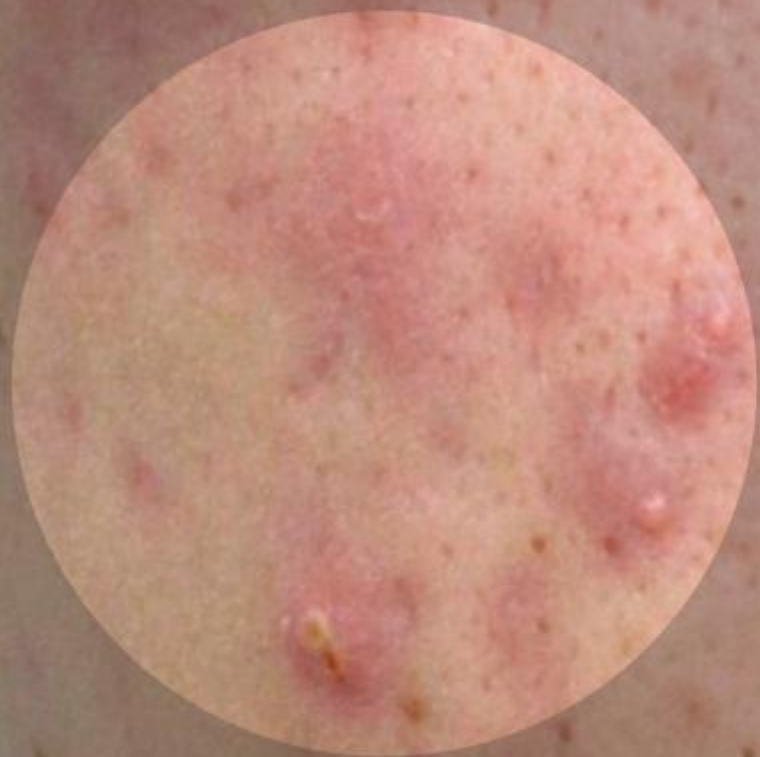
Ideal for use in anti-acne products. Potent antimicrobial (fungi, yeasts, gram negative bacteria and herpes simplex virus).

ACTIVES

Essential oil of Tea Tree



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NATURALLY INNOVATIVE



BEFORE



AFTER 4 HOURS

Disappears with acnes in blink of an eye.

*Contains Nanovetor Melaleuca, which promotes results in just 4 hours after application.



NANO LUMINOUS EYES

Nano Luminous Eyes consists of a blend of essential oils with moisturizer, anti-inflammatory, regenerative and cellular depigmentation action.

NANO焕颜精华



nanovetores
INOVANDO NATURALMENTE

BENEFITS

Nano Luminous Eyes consists of a blend of essential oils with moisturizer, anti-inflammatory, regenerative and cellular depigmentation action.



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INOVANDO NATURALMENTE

APPLICATION

**BBCream, Photo
protectors, Cosmetic
Removers, Creams, Gels,
Serums, Facial Masks,
Liquid Soaps and Facial
Tonics.**



nanovetores
INOVANDO NATURALMENTE

TECHNICAL DATA

Composition: essential oils of mandarin, sálvia and palmarosa

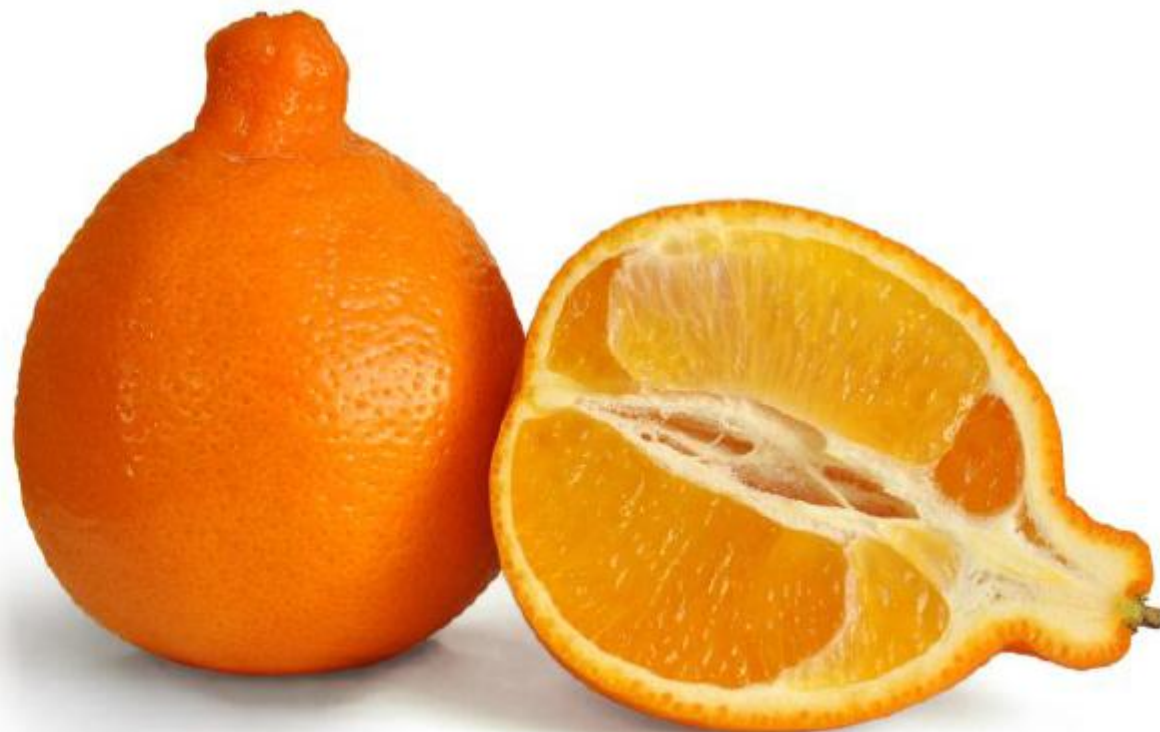
Incompatibility: Ethanol

Dispersibility: Water

Particle: Lipid

Use concentration: 0,5% to 5%

Trigger System: Enzymatic



NANO THIOGLYCOLIC ACID

NANO巯基乙酸美白精华

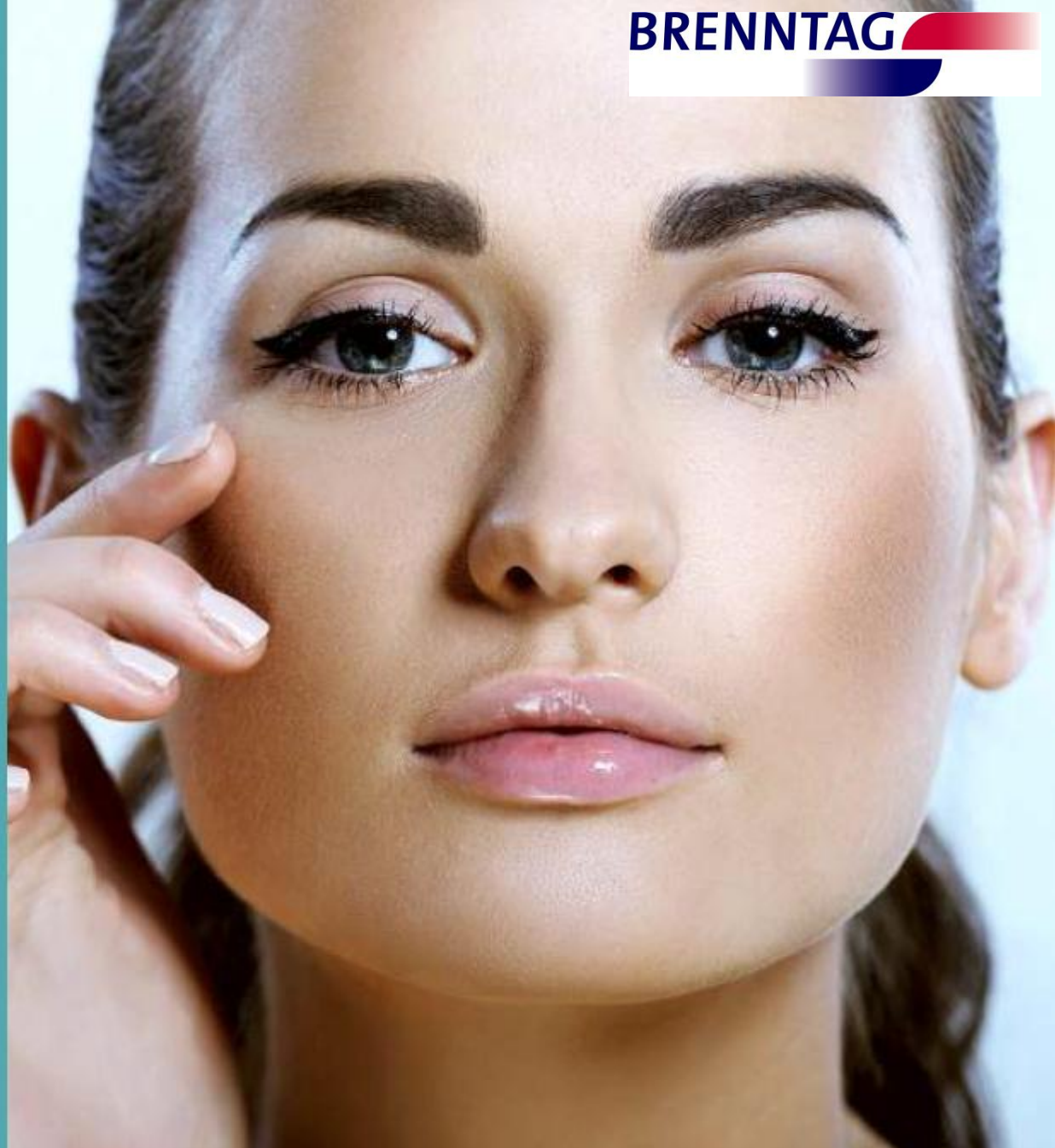


BENEFITS

Effectiveness in treating hyperpigmentation of ocher color by hemosiderin deposit.

APPLICATION

Body products, emulsions for eye and facial area, facial masks, serums, gels-cream.



TECHNICAL DATA

Composition: Thioglycolic acid

Incompatibility: Ethanol

Dispersibility: Water

Particle: Lipid

Use concentration: Dark
circles: 2 to 5% Other: 5 to 15%

Trigger System: Enzymatic



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NANOVETOR DMAE

**Nanovetor DMAE is an biopolymer
encapsulated active in nano-
particles enzymatic trigger release.
It possesses prolonged release,
releasing the encapsulated active
during 12 hours after its
application.**

**NANO二甲基乙醇胺
除皱精华**



nanovetores
NATURALLY INNOVATIVE

BENEFITS

Nanovetor DMAE is an active consisting of dimethylaminoethanol bitartrate that has antiaging action reducing wrinkles and promoting increasement in the cutaneous firmness, anti-wrinkles and firming the skin.



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APPLICATION

**Compatible with non-
ionic vehicles**



nanovetores
NATURALLY INNOVATIVE

TECHNICAL DATA

Composition: Dimethylaminoethanol Bitartrate

Incompatibility: EDTA

Dispersibility: Water

Particle: Biopolymer

Use concentration: 1 to 10%

Trigger System: Enzymatic

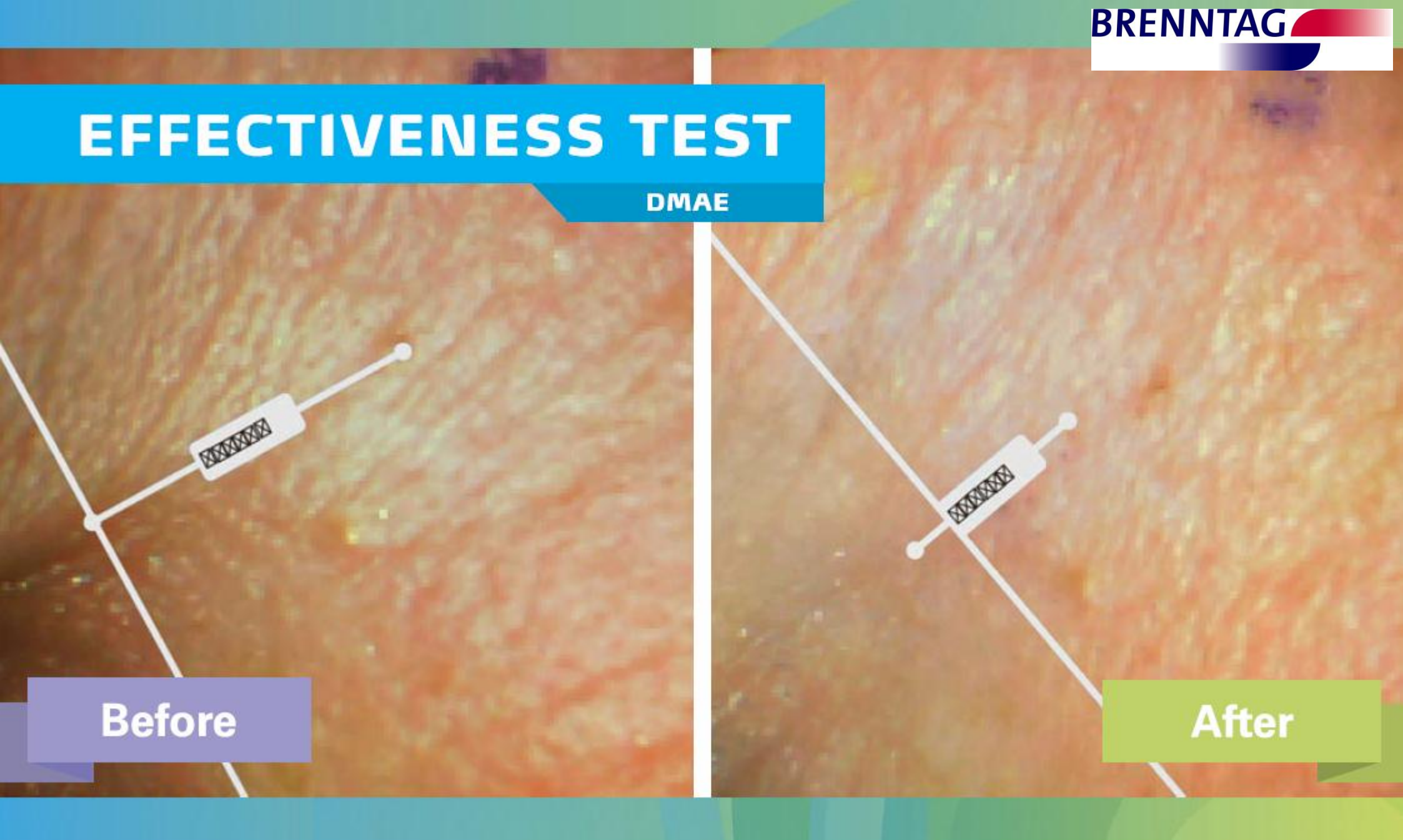


EFFECTIVENESS TEST

DMAE

Before

After



NANO OIL CONTROL

Nano Oil Control is a blend of actives rich in phenolic acids which are powerful oiliness regulatory substances.

NANO长效控油精华

Nano Oil Control 由多种活性物混合而成，富含酚酸，针对油脂分泌有强大的调理能力。



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INOVANDO NATURALMENTE

BENEFÍCIOS

The Nano Oil Control is indicated to control oiliness of skin and scalp because it has astringent and regulatory action of oiliness.

Nano Oil Control 具有紧致、调理油脂的功效，因此可以有效控制皮肤及头皮油脂分泌。



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TECHNICAL DATA

Composition: essential oils of rosemary, sage, mint, pumpkin seed oil, chamomile and panthenol.

成份：迷迭香精油、鼠尾草精油、薄荷精油、南瓜籽油、洋甘菊精油、泛醇

Incompatibility: Ethanol.

不相容性：乙醇

Dispersibility: Water.

分散性：水中分散

Particle: Biopolymer.

微囊材质：生物聚合物。

Concentration of use: 0,5 – 5%

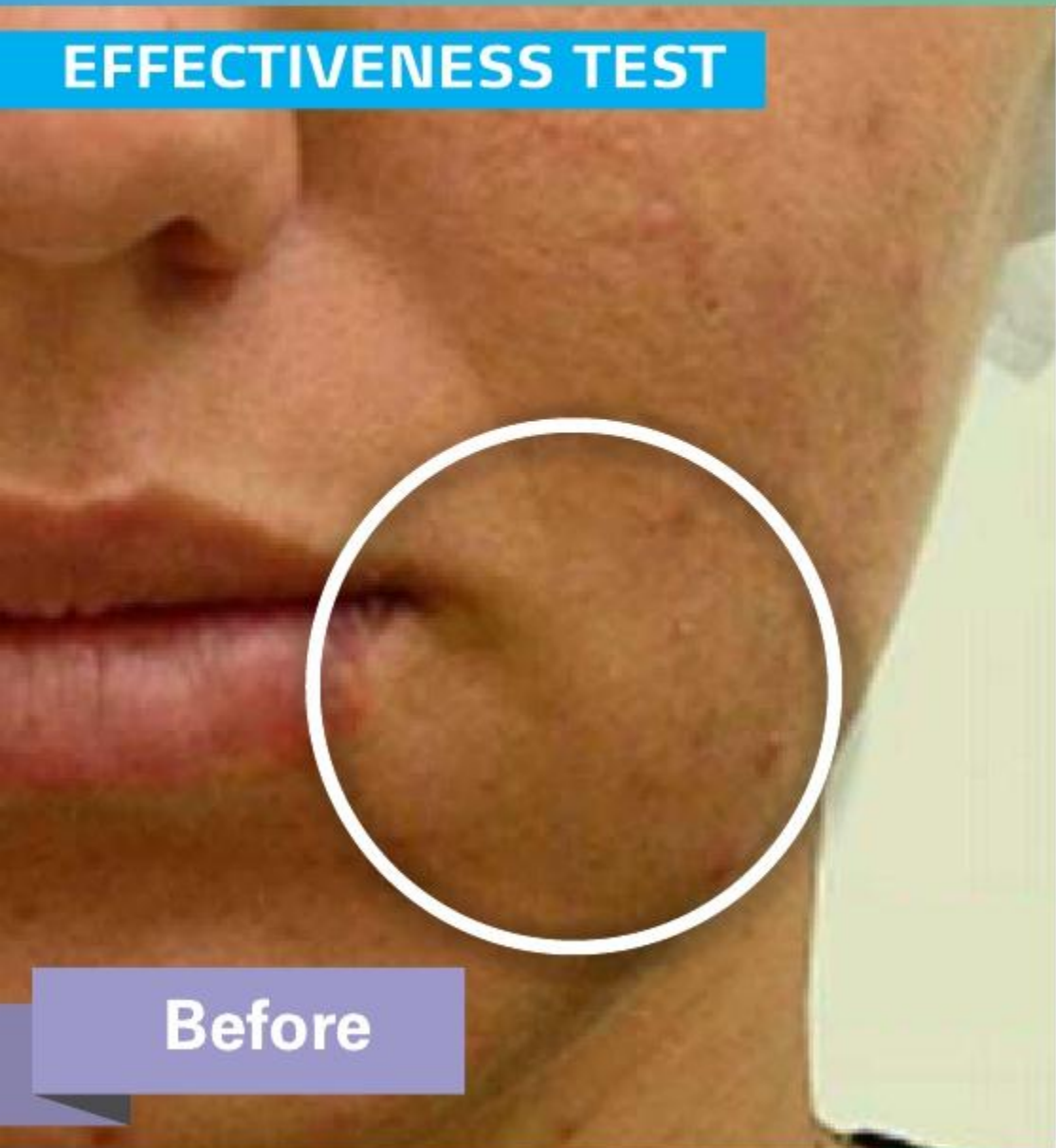
添加量：0.5-5%

Trigger System: Enzymatic

破囊条件：酶



EFFECTIVENESS TEST



Before



After

NANO OIL CONTROL

Information from efficacy trials



CLAIM 功效宣称

Reducing oiliness, with astringent action, ideal for oily and greasy skin.

减少油光，具有收敛作用，适合油性皮肤

RESULT 结论

Reduces oiliness in 35% and reduces the size of the pimples in 28% after 7 days of use.

使用7天后，出油量减少35%，粉刺大小减少28%

APPLICATION MODE 应用

Serum

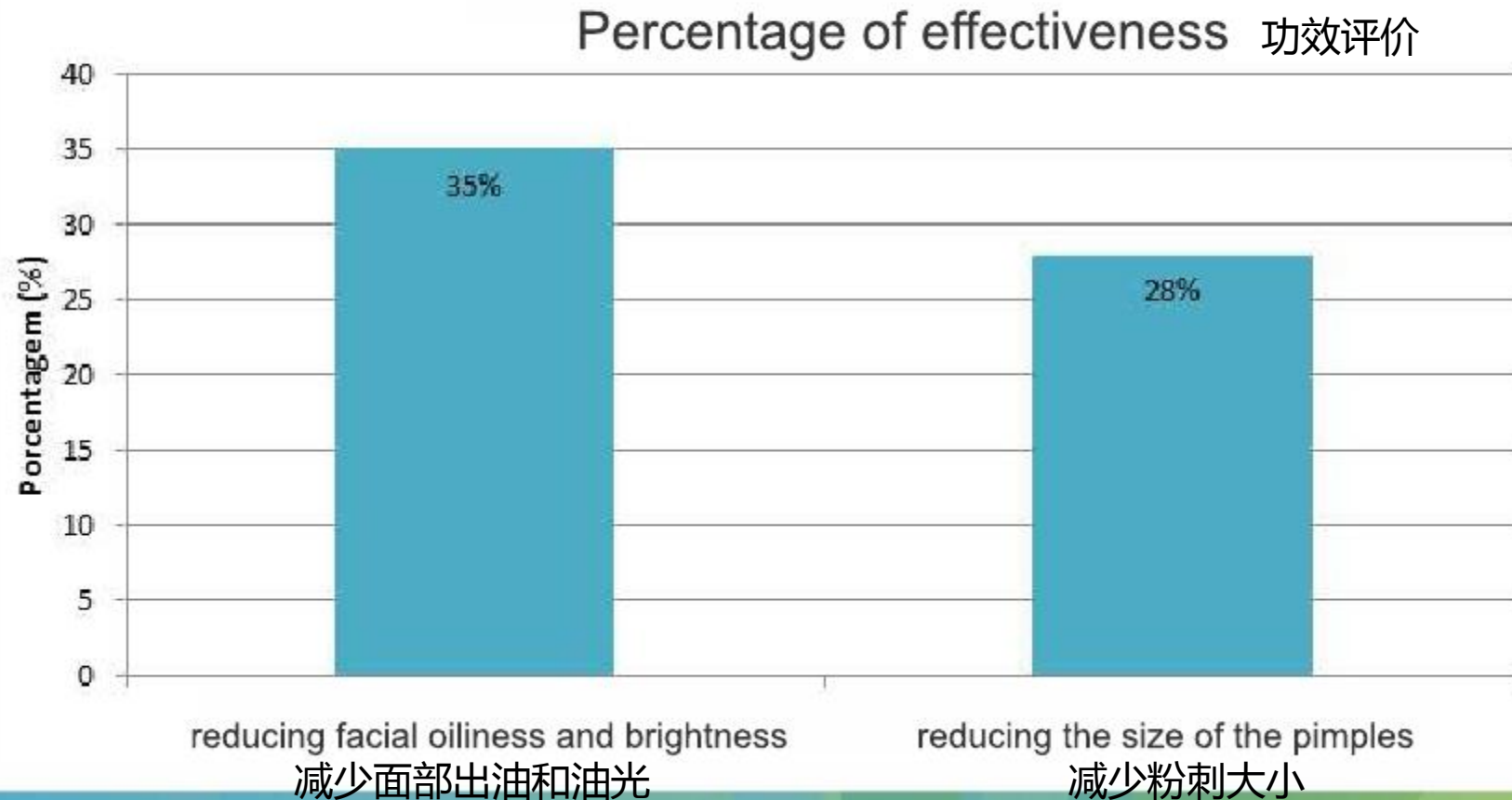
精华液

US D CONCENTRATION 添加量

10%

NANO OIL CONTROL

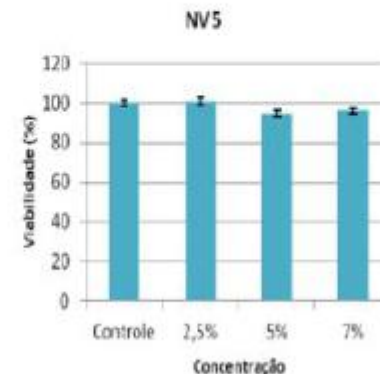
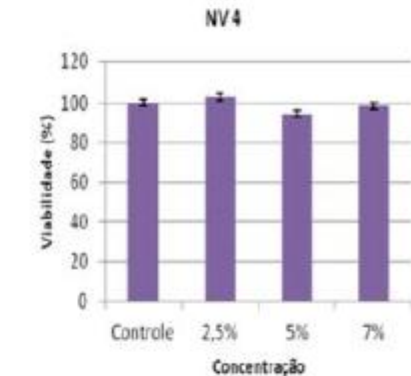
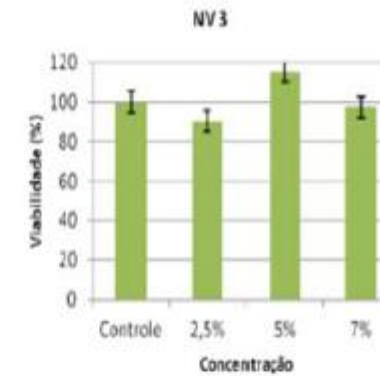
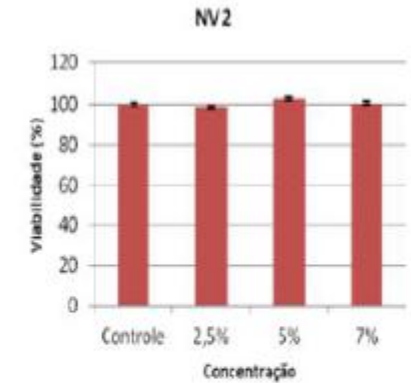
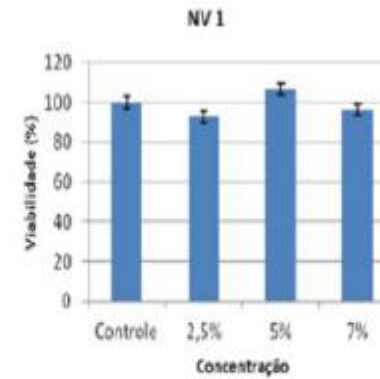
Information from efficacy trials



PRECLINICAL SAFETY STUDIES

- IN VITRO

*** Cytotoxicity Study of Nanovetores** - Cytotoxicity was performed in cell culture by the MTT method. As can be observed Nanovetores showed no cytotoxicity to Vero cell culture.

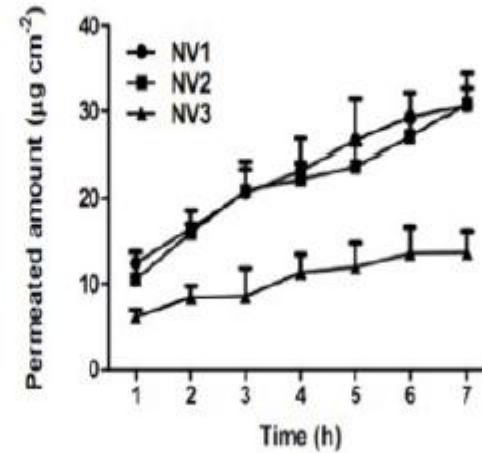


Cell viability graphs as a function of concentration for 5 Nanovetores capsules of different formulations.

PRECLINICAL SAFETY STUDIES

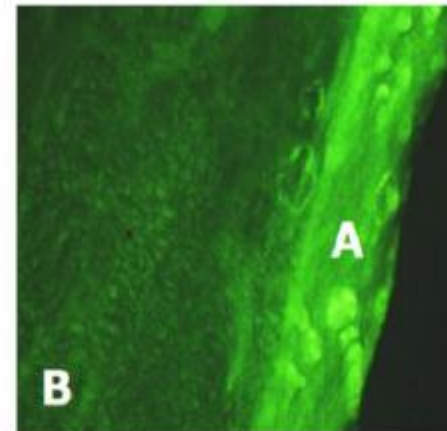
- SKIN PERMEATION

***The skin permeation studies** were performed in Franz camera with pig ear skin as recommended by the official compendia.



Sample Amount permeated as a function of time of the study.

The NV1 and NV2 formulations are those which have higher permeation compared to NV3.



Histological section of the pig ear skin indicating the permeation of nanovetores with fluorescent dye. (A) Epidermis (B) Dermis.

谢谢！



Nanovetores 全国独家代理

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