

# QUIDITAT

NWP

EXPOSOME SKIN PROTECTION

# ASSESSA

INNOVATION FOR A GREENER WORLD



NATURAL  
ORIGIN  
98.93%

## QUIDITAT NWP

Offers broad anti-inflammatory activity and protective action against air pollution (PAH) and smoke. It is a high-performance ingredient composed of active cucumber biomolecules, enhanced by synergy with a polymeric network of marine algae polysaccharides.

## USAGE LEVELS

PRODUCT	%
Cream (eyes area)	2 to 4
Cream (sensitive)	3 to 6
After sun	2 to 5

## EXPOSOME AND SKIN HEALTH

The aging exposome, comprising environmental factors like solar radiation, pollution (e.g. PAHs) and lifestyle, significantly impacts skin health, driving premature aging.

These factors induce damage through oxidative stress and inflammation, leading to structural degradation of the skin. This compromises the skin barrier, emphasizing the need to mitigate harm for overall cutaneous health.

Natural ingredients such as cucumber, with its antioxidant and soothing properties, and *Hypnea musciformis*, a source of beneficial sulfated polysaccharides, combat skin issues related to environmental stressors.

## CUCUMBER

### ASSESSA TECHNOLOGY ENHANCED COMPONENTS

Cucumber (*Cucumis sativus*), historically used in ancient skincare and still applied topically today, benefits the skin due to its composition. Its high water content provides hydration, while antioxidants and anti-inflammatory compounds help neutralize oxidative stress, soothe irritation, and support skin barrier function.

These properties contribute to its traditional use for hydrating and calming compromised skin. On the other hand, industrial products based on cucumber extracts do not have the same benefits. The conventional processes cannot extract the bioactive molecules of cucumber, thus nullifying benefits. Aware of this challenge, ASSESSA scientists developed a unique technology to extract and enhance the activity of all valuable components of the cucumber.

# NWP QUIDITAT

EXOSOME SKIN PROTECTION

## CLAIMS

Exosome shield

Anti-Pollution /  
Urban Pollution

Reduces  
smoke-induced  
inflammation  
response

Reduces  
pollution-induced  
skin damage

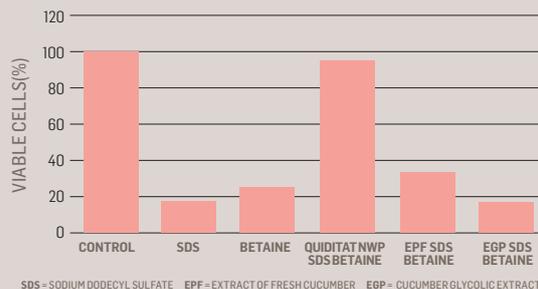
Powerful soothing  
effect against  
physical and  
chemical aggressors  
on the skin

## INCI NAME

Cucumis Sativus  
(Cucumber) Fruit Extract,  
Hypnea Musciformis Extract,  
Gelidiella Acerosa Extract,  
Sodium Benzoate and  
Potassium Sorbate

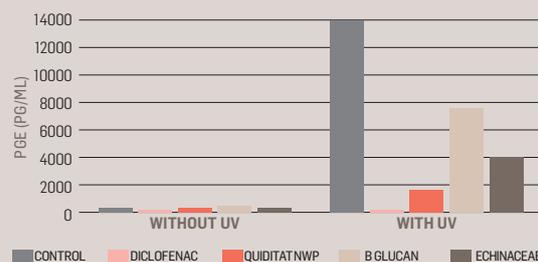
## ANTI-INFLAMMATORY ACTIVITY (IN VITRO TESTS)

### PROTECTION OF KERATINOCYTES



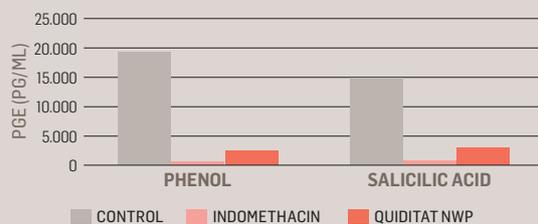
QUIDITAT NWP is efficient in the protection of cells exposed by surfactants.

### PGE RELEASE IN KERATINOCYTES IRRADIATED BY UV



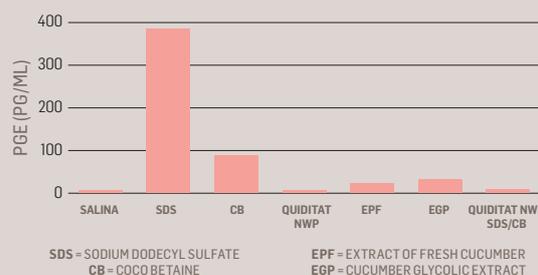
QUIDITAT NWP reduces inflammation caused by UV radiation, and the release of PGE by 90% in cultures of keratinocytes submitted to irradiation with UVB. It is more efficient than Beta-glucan and Echinacea extract as an anti-inflammatory ingredient.

### PGE RELEASE IN SKIN CELLS TREATED WITH ACIDS



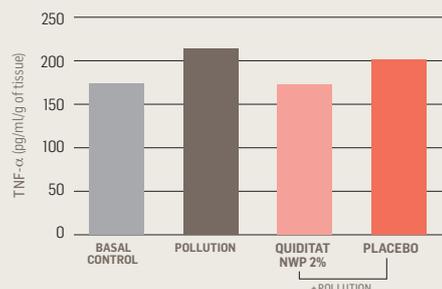
Quiditat NWP can reduce the release of prostaglandin E by 88% when phenol is applied and by 83% when is applied salicylic acid to a culture of human keratinocytes.

### A RELEASE OF INFLAMMATORY MEDIATORS IN SKIN CELLS TREATED WITH SURFACTANTS



## PRECLINICAL EVALUATION (EX-VIVO TESTS)

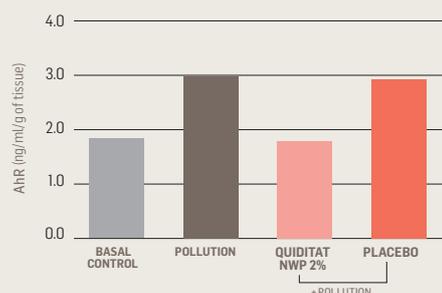
### TNF- $\alpha$ QUANTIFICATION



Exposure to the pollution stress promoted an increase of 22.04% in TNF- $\alpha$  synthesis, compared to basal control. The evaluated product with QUIDITAT NWP 2% showed a protective effect, **reducing TNF- $\alpha$  production by 19,20%** respectively, compared to the pollution group and **14.94% lower** than its placebo.

### AhR QUANTIFICATION

AhR (Aryl hydrocarbon Receptors), found in all skin cells, is crucial for skin health and immunity, acting as a sensor that triggers skin responses to various internal and external molecules, especially pollution and light exposure. Reducing the expression of AhRs is directly related to the protection of the skin from pollutants.



Exposure to the pollution stress promoted an increase of 66.27% in AhR synthesis, compared to control. QUIDITAT NWP 2% **reduces the expression of AhR receptors by 44.44%** compared to the control group and **40.00% compared to the placebo group.**

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