

# polycan™

## Mobility Starts in the Gut

Polycan™ is a next-generation fermented postbiotic derived from the patented black yeast strain *Aureobasidium pullulans* SM-2001. By connecting gut health, immune regulation, and musculoskeletal function through the Gut–Mobility Axis, it addresses gut-driven inflammation at its source — backed by dedicated studies delivering comprehensive support for joints, muscles, and bones.

-  Patented Strain · *A. pullulans* SM-2001
-  Standardized  $\beta$ -1,3/1,6-Glucan Content
-  40+ Scientific Studies, Including 7 Human Clinical Trials
-  FDA GRAS Notified · Halal Certified
-  Postbiotic · SCFA Pathway Activation



Made in Korea  
Discover Polycan™

**GLUKAN**  
With Nature  From Nature

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## THE UPSTREAM SWITCH

### GUT-DRIVEN MECHANISM ACROSS PRECLINICAL MODELS

#### RESTORE



Gut Permeability  
**-39%**

Reinforces tight junctions & suppresses mucosal damage

[DSS Colitis Model]

#### CALM



Inflammatory Cytokines  
**-50%**

Suppresses NF-κB/MAPK signaling, downregulating TNF-α, IL-6, IL-1β, IL-8

[HT-29 Cell · DSS Model]

#### SIGNAL



SCFA Production  
**+47.7%**

Lowers toxic metabolites (phenol · p-cresol) and restores F/B ratio and bowel motility

[HFD · Loperamide Models]

#### MOBILIZE



##### [Joint]

Chondrocyte proliferation

**+207.7%**

##### [Bone]

Ca absorption rate

**+43.3%**

##### [Muscle]

Atrogin-1 (degradation factor)

**-53.2%**

[Joint · Bone · Muscle Models]

*\*Note: Biomarkers and mechanistic outcomes compiled from independent preclinical study protocols*

## PROVEN IN HUMANS

### MOBILITY OUTCOMES ACROSS HUMAN CLINICAL TRIALS



#### JOINT

**Clinical Study:** n = 82

· Mild to moderate knee OA patients  
· Glucosamine-controlled · 12-wk DB-RCT

##### WOMAC Total Score

**-53.4%**

p = 0.04  
(Additional reduction vs. glucosamine alone)

##### Rescue NSAID Use

(Painkiller need)

**-54.8%**

p = 0.001  
(Reduction vs. glucosamine alone)



#### MUSCLE

**Clinical Study:** n = 45 · Elderly (60-78 yrs)  
Placebo-controlled (w/ Exercise) · 12-wk RCT

##### Grip Strength

Left

**+20.8%**

Right

**+17.0%**

p < 0.01 (vs. baseline)

##### Muscle-fatigue CK

**-24.4 IU/L**

p < 0.05 (vs. placebo)



#### BONE

**Clinical Study:** n = 60

· Perimenopausal women  
· Placebo-controlled · 12-wk DB-RCT

##### Urinary DPD

(Bone-resorption marker)

**-12%**

p = 0.030 (vs. placebo)  
· Sub-analysis of women in their 50s

24h

##### Urinary calcium excretion

**-11.7%**

p = 0.028 (from baseline)

## ONE INGREDIENT, MULTIPLE MARKET OPPORTUNITIES



TABLETS



CAPSULES



SOFTGELS



POWDERS



JELLY STICKS



LIQUID SHOTS