# Silent Immune Weakness? Immune Cells Know First

Neutrophils and cytotoxic lymphocytes are vital defenders against infection and diseased cells. Cellytics® Pet Immunity objectively measures a dog's immune health.

## Cellytics® Pet Immunity is recommended for those who:

are concerned about weakened immunity due to aging

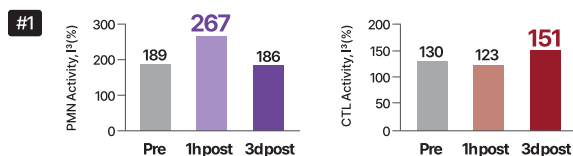are undergoing long-term treatment for chronic illness or taking medications

wish to check their dog's health status before illness develops

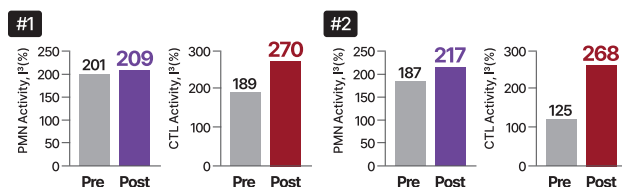need to monitor immune response during vaccination or surgery

notice fatigue, appetite or coat changes, or a general decline in vitality

## Case Studies Confirming the Effect of Immune Boosters

### | PDRN treatment effect

#1

PMN Activity, I³(%)
- Pre: 189
- 1h post: 267
- 3d post: 186

CTL Activity, I³(%)
- Pre: 130
- 1h post: 123
- 3d post: 151

### | Canine IL-15 treatment effect

#1

PMN Activity, I³(%)
- Pre: 201
- Post: 209

CTL Activity, I³(%)
- Pre: 189
- Post: 270

#2

PMN Activity, I³(%)
- Pre: 187
- Post: 217

CTL Activity, I³(%)
- Pre: 125
- Post: 268

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**Meta Immune Tech**

Take a step ahead
In immune testing with
Cellytics® Pet Immunity

Book a Test

## Contact & Demo Request

| | |
|---|---|
| TEL | 044-417-6382 |
| EMAIL | contact@metaimmunetech.kr |
| HOMEPAGE | cellytics.net |

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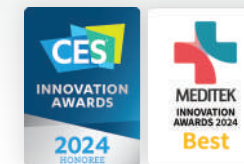
## Total Immune Profiling for Dogs
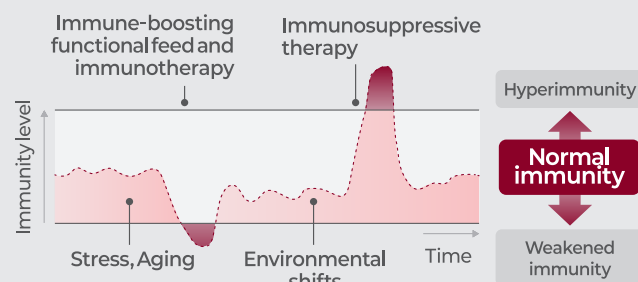
# Cellytics® Pet Immunity

## Why Measure Canine Immunity?

| Timely detection Better treatment | → | Growing Need for Immunity Testing |
|---|---|---|



Immune-boosting functional feed and immunotherapy

Immunosuppressive therapy

Immunity level

Stress, Aging

Environmental shifts

Time

Hyperimmunity

Normal immunity

Weakened immunity

### Types and Limitations of Current Canine Immunity Test

**ELISA (NK P****)**

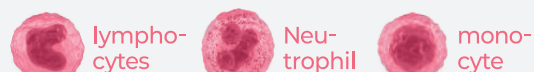| Complexity | Moderate |
|---|---|
| Analyte | IFN-$\gamma$ |
| Method | ELISA |
| Reliability | Normal |
| Unmet needs | · Based on IFN-$\gamma$ levels in whole blood ➡ lacks high accuracy and reliability. <br> · ELISA-based testing ➡ requires skilled laboratory personnel. |

**Cellytics® Pet Immunity (C.P.I)**

| Complexity | Moderate |
|---|---|
| Analyte | WBC, PMN, CTL |
| Method | DIH |
| Reliability | High (single-cell level) |

· Measuring neutrophil and cytotoxic lymphocyte activity at the single-cell level
 ➡ improves accuracy and reliability
· AI-powered analysis
 ➡ eliminates the need for skilled personnel

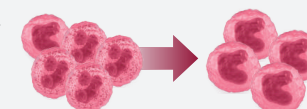## Total Immune Profiling for Dogs Cellytics® Pet Immunity

**1** Blood collection (>1mL)

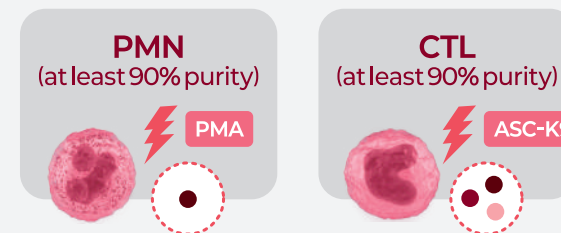**2** WBC preparation

lympho-cytes  Neu-trophil  mono-cyte

**3** Separation of PMN and CTL

**4** Activation of PMN & CTL

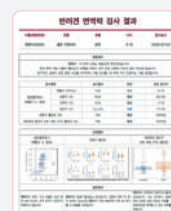| PMN (at least 90% purity) | CTL (at least 90% purity) |
|---|---|
| PMA | ASC-K9 |

**5** Sample loading

10μl sample

**6** On-device measurement

**7** Review test results

Data load to hospital

## Test Results
## Immune Cell Activity [ICA, %] Reference Range (Mean)

| PMN | | CTL | |
|---|---|---|---|
| High Above | 310 | High Above | 211 |

Immune cell activity exceeds the normal range, indicating a risk of overreaction.

| Normal | 153~309 (229) | Normal | 167~210 (194) |
|---|---|---|---|

Immune cells are properly activated and functioning.

| Low Below | 152 | Low Below | 166 |
|---|---|---|---|

Immune cell activity is low. Immune function needs to be reinforced to resist infection or cancer development.



Cellytics® Pet Immunity Report