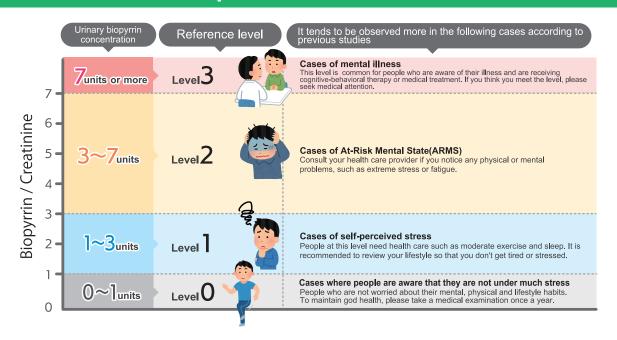


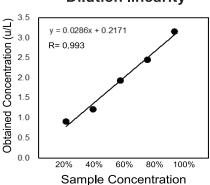
Explanation of Results



Kit performance

Standard curve 2.0 Absorbance (450nm) $y = -0.342\ln(x) + 0.9954$ 1.5 R= 0.996 0.0 6 3 5 Biopyrrin Concentration (u/L)

Dilution linearity



Reproducibility between plates

	Low	High
#1	1.15	3.62
#2	1.20	3.60
#3	1.01	3.44
#4	1.14	3.60
#5	1.19	3.80
Mean	1.14	3.61
C.V.	6.9%	3.5%

Other products

In Vitro Diagnostics

- SARS-CoV-2 antigen test
- •Multi Blood test stick (Glu, TCHO, TG)
- Multi Mineral test stick(Mg, Zn, Alb)
- Li test reagent (for Auto analyzer)

Life Science Products

- SARS-CoV-2 antigen test
- SARS-CoV-2 antibody test (N protein)
- SARS-CoV-2 antibody test (Spike protein)
- •Oral test (Hb. pH)
- •E. coli measurement kit
- •COVID-19 Human IgM IgG ELISA (Spike Protein)(S1)
- •COVID-19 Human IgM IgG ELISA (Spike Protein)
- •COVID-19 Human IgM IgG ELISA (Nucleocapsid Protein)
- •COVID-19 Human IgA ELISA (Spike Protein)(Full-Length)
- •COVID-19 Human IgA ELISA (Spike Protein)(S1)
- •COVID-19 Human IgA ELISA (Nucleocapsid Protein)
- •SARS-CoV-2 Virus ELISA (Nucleocapsid Protein)



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Biopyrrin ELISA kit



Direct evaluation of mental stress!! Biopyrrin as the biomarker for ARMS (At-Risk-Mental-State)

What are ARMS and Biopyrrin

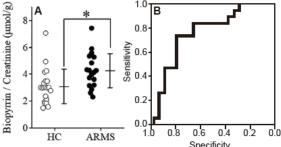
The At-Risk-Mental-State (**ARMS**) was introduced in 1996 and has now been applied clinically to identify subjects at high-risk for psychosis. Upon completion of this assessment by expert and trained clinicians, referred subjects are assigned a status of being at risk (ARMS+) or not at risk (ARMS-) for psychosis. Evaluation of ARMS is critical to prevent the onset of mental disorders.

Biopyrrin is an oxidative metabolite of bilirubin when reacting with reactive oxygen species (ROS). Many studies have supported that increasing urinary biopyrrin levels may reflect different oxidative stresses, including physical stresses (acute myocardial infraction, atrial fibrillation, Parkinson's disease, etc.), or psychological stresses (chronic schizophrenia, depression, emotional stimuli or social pressure etc.)

A clinical trial conducted by Shimane University School of Medicine and RESVO Co., Ltd. revealed that urinary biopyrrin may currently be the most useful marker for the early detection and screening of ARMS subjects.



1. A.R. Yung et al., Schizophr Bull, 1996 2. Miyaoka T et al., Eur. Neuropsychopharmacol., 2005 3. Arata Oh-Nishi, Rei Wake et al., Early Interv Psychiatry . 2021



A: Urinary biopyrrin levels (MEAN ± SD) in healthy people and ARMS patients

ARMS (At-Risk Mental State): 4.26±1.26
*: P<0.05

B: ROC analysis of ARMS evaluation based on urinary biopyrrin levels. When the cutoff value is 3.502, the sensitivity and specificity are 81% and 74%, respectively.

Rei Wake et al., "Urinary biopyrrins and free immunoglobin light chains are biomarker candidates for screening at-risk mental state in adolescents", Early Intervention in Psychiatry. 2021;1–9.

Detection of urinary biopyrrin:

Stable, Simple, Non-invasive!

Cellspect provides Biopyrrin Antibody "24G7", Biopyrrin antibody is the only antibody that could detect biopyrrin in the world.