

revvity

Multimode Plate Reader

VICTOR Nivo™ | EnVision™ XCite | EnVision Nexus™

BMS





Choose the right plate reader for your research

Microplate Reader는 기초 연구 및 신약 연구에 필수적인 구성 요소입니다. 특히 Revvity의 모든 Plate Reader는 하나의 장비로 아래와 같은 Application에 활용할 수 있습니다.

- Absorbance
- Cell viability
- Biomarkers
- Fluorescence
- Cell proliferation
- Protein : protein interaction
- Luminescence
- Cell toxicity
- Gene expression
- TRF
- Drug screening
- Food monitoring
- TR-FRET
- Pathway analysis
- Epigenetics
- Alpha
- Receptor binding

30년 이상의 microplate reader 개발 경험이 있는 Revvity와 35년 이상 생명과학 연구의 동반자인 (주)비엠에스가 만나 고객에게 최상의 서비스와 technical support를 약속합니다.

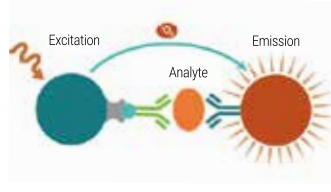


Choose the right technology for your research

Alpha

Versatile, no-wash, intuitive platform
Compatible with complex samples
Capable of measuring virtually any target

Applications :
Proteins and phosphoproteins,
protein : protein interactions,
receptor-ligand interactions,
DNA interactions,
post-translational
protein modifications



TR-FRET

Easy-to-use, no-wash, and ultrasensitive
Highly reproducible assay platform
Used for detection, quantitation, and screening

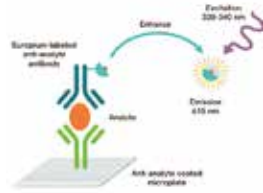
Applications :
Proteins and phosphoproteins,
protein : protein interactions,
receptor-ligand interactions,
secondary messenger levels



TRF

Long signal stability
Multiplexing capability
Broad sample compatibility

Applications :
Proteins and phosphoproteins,
protein : protein interactions,
cytotoxicity, cell proliferation



Luminescence

Significant for drug development for research in
transcriptional gene expression, virus life cycles,
and cell viability

Applications :
Cytotoxicity and cell proliferation, reporter gene



The solution of choice for all your assays

Cellular

Bottom-reading, Shaking, Scanning,
Temperature control, Kinetics
capabilities를 이용하여 보다 편리한
cellular assay 가능

GPCR

High-throughput read technology로
AlphaScreen, AequoScreen, HTRF,
LANCE Ultra와 같은 넓은 범위의
GPCR assay에 적합

Reporter Gene

Scanning, Kinetics capabilities 및
label-specific optical mirror module과
filter가 있어 GFP assay 및 luciferase와
beta lactamase를 사용한 dual
reporter-gene assay 가능

Enzyme

정확하고 안정적인 온도 제어 및 restacking
기능을 통해 광범위한 dynamic range에서
민감한 kinetic assay를 수행할 수 있으며
short-repeat interval 실험에서 고속으로
detection

Kinase

Tyrosine / serine / threonine kinases
연구에 LANCE Ultra / HTRF biochemical
assay가 적합, 또한 Alpha technology는
phosphorylated peptides, full protein
substrates 및 endogenous
phosphorylated protein을 분석 가능

Quantification

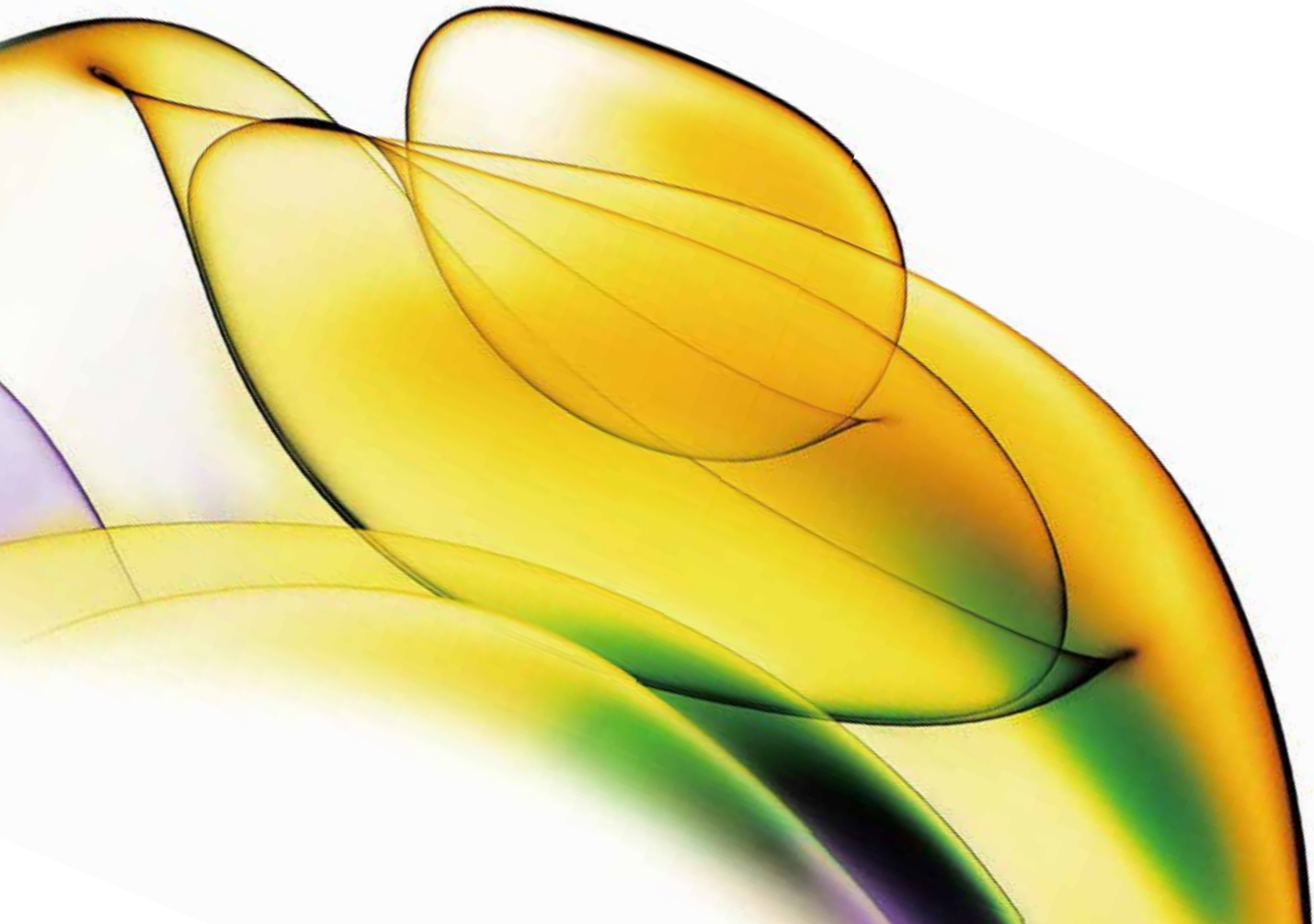
UV/Vis spectrum을 포괄하는 Filter와
optical mirror module을 통해 DNA와
protein의 정량과 기본적인 ELISA 측정

Multimode Plate Reader

VICTOR Nivo™

EnVision™ XCite

EnVision Nexus™



Selection Guide



VICTOR Nivo™



Envision™ XCite



EnVision Nexus™

	VICTOR Nivo™	Envision™ XCite	EnVision Nexus™
Absorbance	Filter or spectrometer	Filter and / or quad monochromators	Filter
Fluorescence Intensity	Filter	Filters and / or quad monochromators	Filter
Luminescence	Including BRET based assays	Including BRET based assays	Including BRET based assays
Ultrasensitive Luminescence	-	●	●
TRF and TR-FRET	Lamp based, HTRF® certified	Lamp or laser based, HTRF® certified	Lamp or laser based, HTRF® certified
Fluorescence Polarization	●	●	●
Alpha (Laser-Based)	Alpha Standard	Standard or HTS Alpha	Enhanced Alpha or HTS Alpha
AlphaPlex (Laser-Based)	-	●	●
Dual PMT Detector	-	-	●
Enhanced Security software	●	●	●

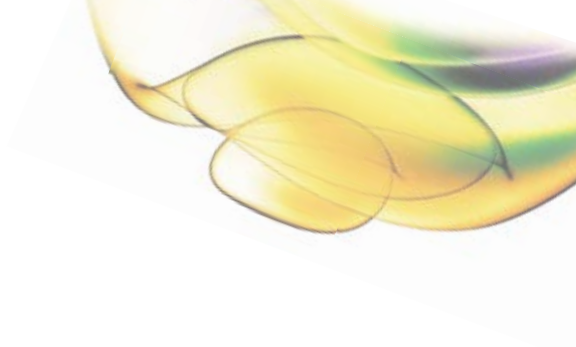
Revvity
Multimode
Microplate Reader
Family



VICTOR Nivo™
Multimode Plate Reader

For low-throughput assays

- Filter base의 가장 작은 multimode plate reader
- 흡광 (405 nm), 형광 (FITC), 발광은 기본
- Alpha와 TRF 옵션 장착 가능
- Dynamic wheel로 최대 32개의 filter 장착 가능
- 쉽고 직관적인 소프트웨어 제공
- 21 CFR part 11



EnVision™ XCite

Multimode Plate Reader

For medium to high-throughput assays

- Monochromator의 장점과 filter의 장점을 모두 사용 가능한 Hybrid-Multimode plate reader
- Sample과 더 가까운 detector를 가지는 Ultra-luminescence 옵션을 통해 기존 standard module 대비 10배 높은 민감도
- HTS Alpha 옵션을 통해 기존 standard module 보다 2배 이상 빠른 처리속도와 signal loss없이 측정 가능
- 런칭 후 20년 동안 많은 reference 보유
- 다양한 excitation, emission filter 및 mirror 구성

EnVision Nexus™

Multimode Plate Reader

For demanding high-throughput assays

- Dual Detector를 통해 동시에 두 가지 파장 측정이 가능한 multimode plate reader
- 탈부착이 손쉬운 filter module type
- Dual emission application (e.g BRET, TR-FRET) 측정에 특화
- Kaleido 4.0 소프트웨어를 이용해 손쉬운 실험 프로토콜 구성 가능

VICTOR Nivo™ Multimode Plate Reader

So Much Science,
So Little Bench Space.



HTRF® Certified

HTRF 호환 가능



Detection Mode

Absorbance

Fluorescence Intensity

Luminescence

Time-Resolved Fluorescence

Fluorescence Polarization

Alpha

Optional Accessories

Temperature Control

Gas Control

Dispenser

Wifi

Stacker

Automation Interface

Enhanced Security

Optional Accessories



Dynamic filter wheel

최대 32개 filter 장착이 가능하며 Inner/outer wheel 사이의 위치 교환으로 excitation과 emission filter 구분없이 사용



Stacker

많은 양의 sample 처리 가능한 stacker 옵션



Dispenser

Fast kinetics, flash luminescence 그리고 dual addition을 위한 dispenser 옵션



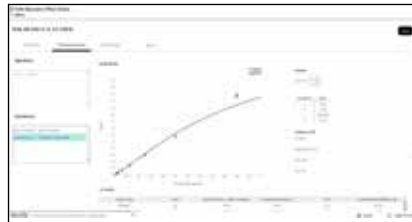
Gas-control

Cell-based assay가 가능한 gas-control unit 옵션

Software For Comprehensive Data Analysis



간결하고 쉬운 interface



내장된 software로 빠른 계산



향상된 security software로 업그레이드 가능

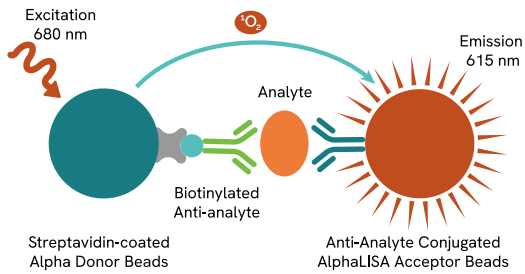
Modalities		VICTOR Nivo™ F	VICTOR Nivo™ S	VICTOR Nivo™ Alpha F	VICTOR Nivo™ Alpha S
Absorbance	Filter-based(F)	●	-	●	-
	Spectrometer(S)	-	●	-	●
Luminescence		●	●	●	●
Fluorescence intensity		●	●	●	●
Alpha		-	-	●	●
Time-resolved fluorescence					Optional
Fluorescence polarization					Optional

Specifications

VICTOR Nivo™		
Dimensions	Without dispenser	W x D x H (cm) : 20 x 50 x 26.5
	With dispenser	W x D x H (cm) : 20 x 50 x 38
Weight	13 kg without dispenser, 15 kg with dispenser	
Plate Formats	1- to 1,536-wells	
Environmental Control	Temperature Gas (optional)	3°C above ambient up to 65°C (0.1°C increments) CO ₂ : 0% ~ 20% (<0.1% accuracy) O ₂ : 1% ~ 20% (<0.1% accuracy)
Shaking	Linear, orbital and double orbital modes	
Dispenser (optional)	2 Injectors, 500 µl each syringe, manual rinsing and priming control	
Power supply	15°C ~ 35°C, < 80 % humidity 110–240V, 50/60Hz, 120W	
Connections	Connection Remote Control	LAN Wi-Fi (modem included); LAN network
Operating System	Any operating system with common web browsers	
Spectrometer (Absorbance only)	Wavelength range Variable bandwidth	220 nm ~ 1,000 nm (1.0 nm increments) 2.0 nm, 5.0 nm, 10 nm
Detector	Flexible measurement height Wavelength range (Emission)	0 mm ~ 16 mm 230 ~ 1,000 nm (Absorbance), 230 ~ 850 nm (other)
Flash Lamp	Wavelength range (Excitation)	230 nm ~ 1,000 nm

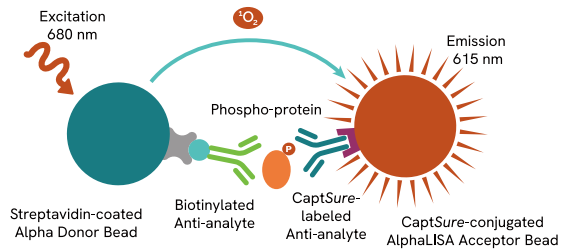
Typical throughput (time per plate, min:sec)	96-well	384-well
Absorbance (Spectrometer, 20 ms measurement time)	0:45	2:38
Absorbance (Filter, 20 ms measurement time)	0:24	1:20
Luminescence (20 ms measurement time)	0:20	1:05
Fluorescence Intensity (20 ms measurement time)	0:24	1:20
Time-Resolved Fluorescence (LANCE, 50 µs Delay, 500 ms)	2:30	9:50
Fluorescence Polarization (125 ms measurement time)	2:04	5:36
Alpha (50 ms excitation time, 700 ms emission time)	2:11	8:46

Revvity만의 특허 기술 **Alpha Technology**



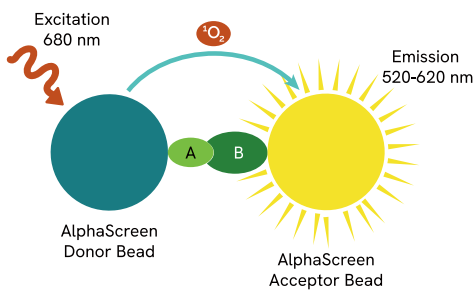
AlphaLISA™

Washing 과정이 없어 1 ~ 2시간 이내 결과 도출이 가능하며 Serum과 plasma를 포함한 다양한 샘플에서 원하는 검출체를 높은 감도로 확인



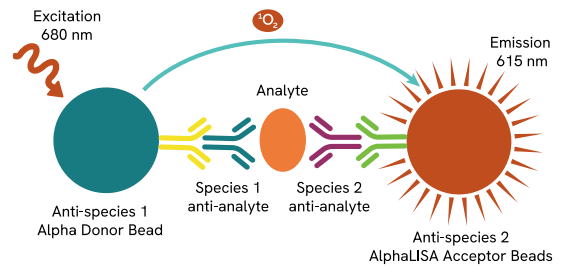
AlphaLISA SureFire® Ultra

CaptSure™ technology를 사용하여 복잡한 샘플에서도 간편하고 빠르므로 phosphorylated protein detection에 적합



AlphaScreen®

Fusion-tagged protein과 protein : protein Interaction 연구에 적합하며 샘플 내의 cAMP, cGMP, phosphorylated peptides 확인에 용이



Alpha Toolbox

연구자 스스로 항체를 구성하여 원하는 샘플 검출 가능

EnVision™ XCite Multimode Plate Reader

Better Speed!
Throughput! Sensitivity!



HTRF® Certified
HTRF 호환 가능

Detection Mode

Absorbance

Fluorescence Intensity

Luminescence

Time-Resolved Fluorescence

Fluorescence Polarization

Alpha

TRF Laser

Ultrasensitive Luminescence

HTS Alpha



Optional Accessories

Temperature Control

Robotic Interface for Automation

Dispenser

Stacker

Enhanced Security



Dispenser & Stacker

Dispenser : 2 channel
 Plate stacker : 20 또는 50개의 plate 적재 가능



Flexible Automation

liquid-handling system인 JANUS G3 Automated Workstation과 함께 유연한 자동화 환경 구축

EnVision™ XCite		
Base unit	EnVision XCite plate reader	5 filter-based technologies (single detector) : Abs, FI, Lum, FP and TRF
General	Light source	Xenon flash lamp
	Plate format	1- to 3,456-well
	Shaking	Linear, orbital, dual orbital
Optional detection technology modules (고급 옵션)	Ultrasensitive luminescence module	-
	Standard Alpha module	Includes Alpha laser
	Standard Alpha module with temperature control	Includes Alpha laser
	HTS Alpha module	Includes ultrasensitive luminescence module and Alpha laser
	HTS Alpha module with temperature control	Includes ultrasensitive luminescence module, temperature control and Alpha laser
	TRF laser module	-
	Quad monochromator (fluorescence/absorbance)	-
Software options	Enhanced Security software package	-

Typical throughput (time per plate, min:sec)	96-well	384-well	1,536-well
Fluorescence intensity/absorbance (on-the-fly)	0:05	0:09	0:19
Fluorescence intensity (10 flashes)	0:15	0:45	2:35
Absorbance, filter (10 flashes)	0:15	0:45	2:36
Fluorescence intensity/absorbance, mono (10 flashes)	0:16	0:49	2:52
Fluorescence polarization* (10 flashes)	0:30	1:30	5:08
TRF LANCE filter (10 flashes)	0:37	2:14	8:32
TRF LANCE laser (on-the-fly, single channel)	0:05	0:11	0:35
TRF LANCE laser (1 flash)	0:32	1:52	7:05
STD luminescence (1 s measurement time)	1:50	7:07	28:04
US luminescence (0.01 s measurement time)	0:14	0:40	2:15
STD Alpha (0.55 s measurement time)	1:08	4:17	17:08
HTS Alpha (0.15 s measurement time)	0:30	1:45	8:47

* Protocol with 2x single channel measurements.

EnVision Nexus™ Multimode Plate Reader

The Nexus of Speed and Sensitivity.



HTRF® Certified

HTRF 호환 가능

Detection Mode

Absorbance

Fluorescence Intensity

Luminescence

Time-Resolved Fluorescence

Fluorescence Polarization

Enhanced Alpha

High Power TRF Laser

Ultrasensitive Luminescence

HTS Alpha

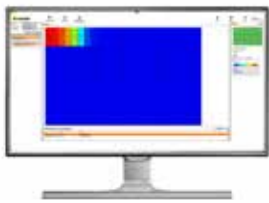
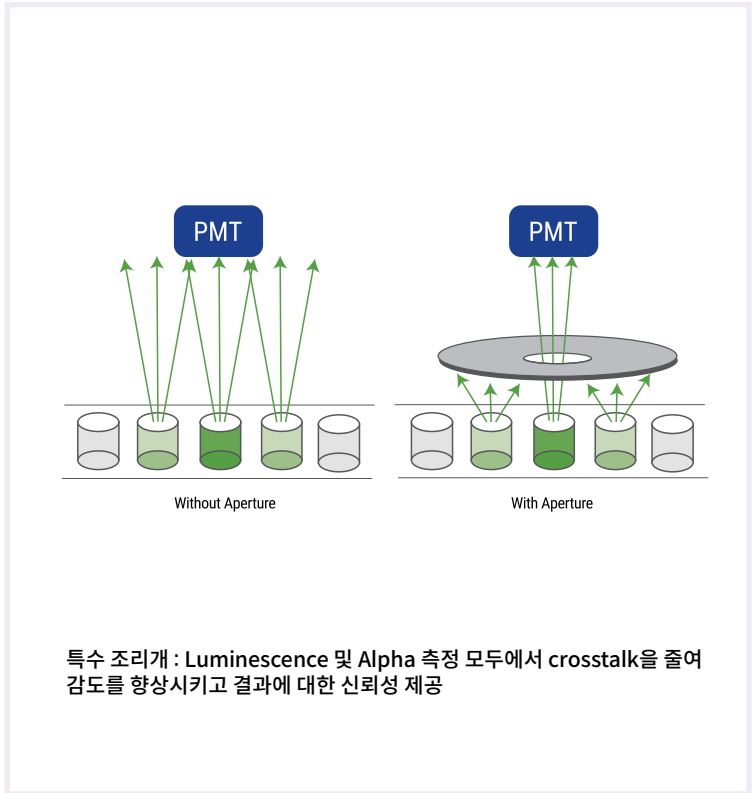
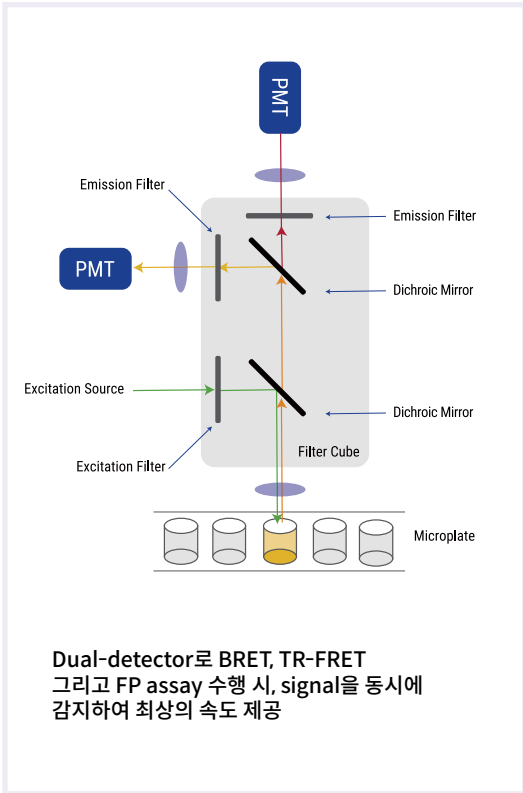


Optional Accessories

Robotic Interface for Automation

Stacker

Enhanced Security



Kaleido control software

새로운 모듈로 교체 시 빠른 인식, 간편한 protocol setting 가능



Plate stacker

20 또는 50개의 plate 적재 가능



Automation system에 최적화

EnVision Nexus™	
Dimensions, (H x D x W, mm) / Weight	485 x 576 x 446 / 90kg (without stacker)
Light Source	UV Xenon flash lamp
Plate Format	1 ~ 1,536 wells
Temperature Control	Temperature range (heating) : 15 ~ 65°C
	Temperature range (maintain ambient temperature) : 20 ~ 25°C
Shaking	Linear, orbital, double orbital

Typical throughput (time per plate, min:sec)	
Detection	384-well
On-the-fly (FI, FP, TRF)	0:13
On-the-fly (Absorbance)	0:09
FI, FP, TRF, LUM, US-LUM (100 ms measurement time)	1:13
Absorbance (30 ms)	0:41
Ultrasensitive Luminescence (10 ms)	0:40
Enhanced Alpha (550 ms)	4:12

revvity

BMS

WE DELIVER SCIENCE.
bms.kr

문의 02-3471-6500 / 042-824-7000

Copyright © 2024 Bio-Medical Science Co., Ltd. ALL RIGHTS RESERVED. 024BM06A