

Explanation for Western blot raw images

1. All Western blot experiments were performed with at least three independent biological replicates.

2. Protein markers:

Marker IV (8–200 kDa, Cat. No.: G2083) and Marker VIII (8–270 kDa, Cat. No.: G2089) were purchased from Sevier Biotechnology (China).

Marker IV (8–200 kDa) was used for the detection of ATP7A, FDX1, and LIAS. Marker VIII (8–270 kDa) was used for DLAT detection.

3. SDS-PAGE gels:

DLAT was separated using a 7.5% precast PAGE color gel rapid preparation kit (Cat. No.: P2011, New Cell & Molecular Biotech Co., Ltd., China).

FDX1 was separated using a 12% precast PAGE color gel (Cat. No.: G2178, Sevier Biotechnology, China).

ATP7A and LIAS were separated using a 10% precast PAGE color gel (Cat. No.: G2177, Sevier Biotechnology, China).

4. Loading controls:

β -actin was used as the internal loading control for ATP7A, FDX1, and DLAT. GAPDH was used as the internal loading control for LIAS.

5. Lane information for each raw blot image:

Fig. 4C: Marker, L02, MHCC97H, Huh7, Hep3B, HepG2.

Fig. 5D: Marker, untreated, miR-124-3p inhibitor, miR-124-3p mimics.

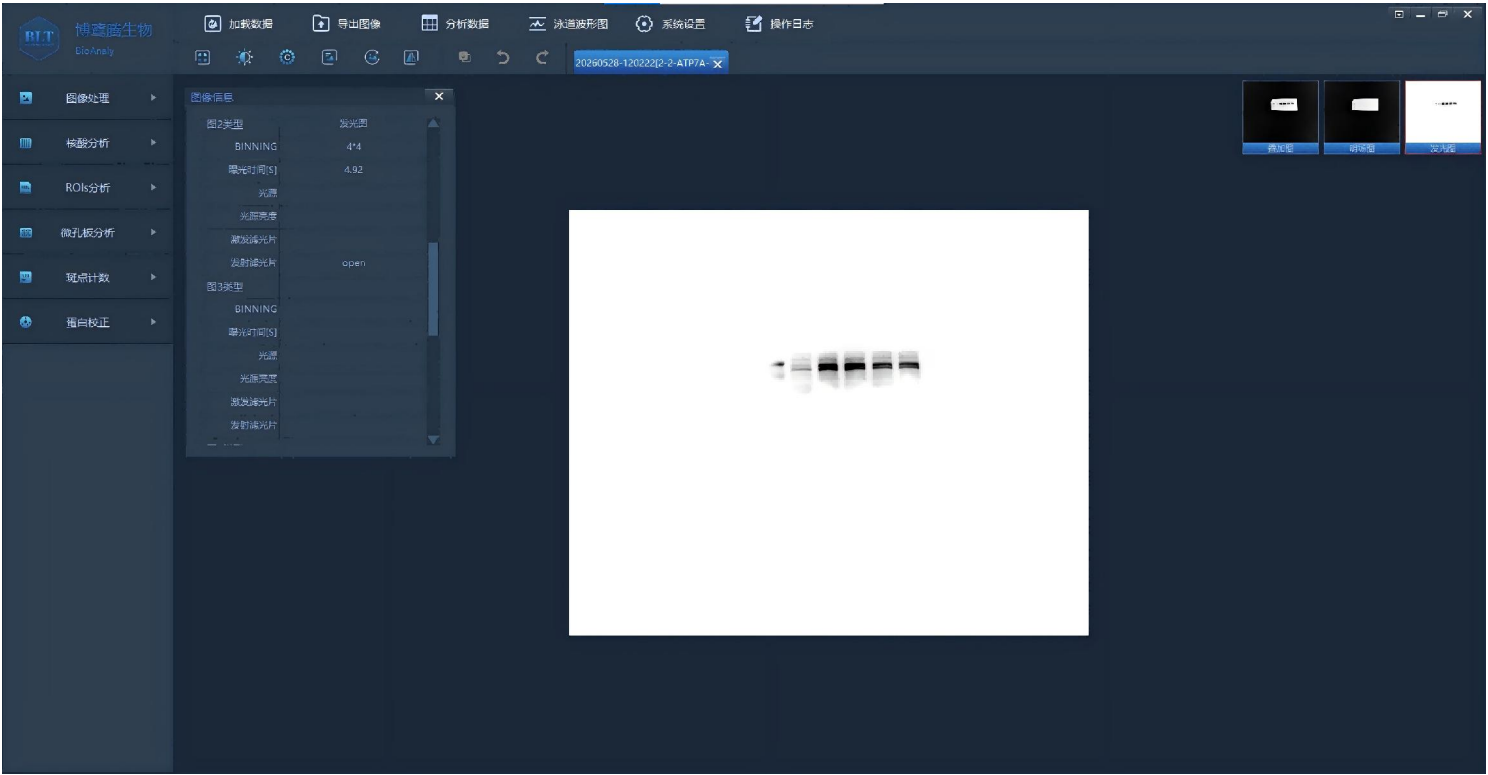
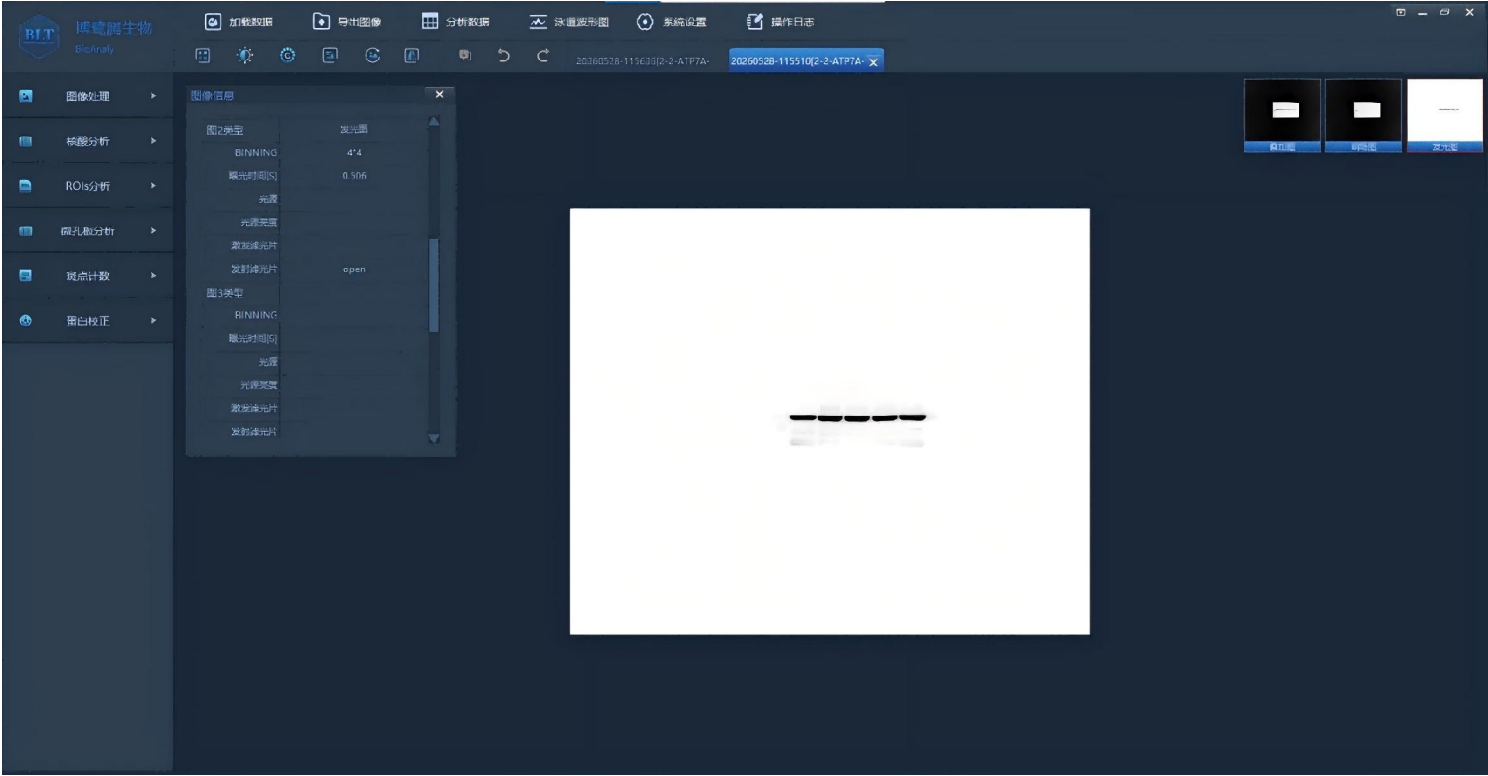
Fig. 7C: untreated, si-NC, si-ATP7A-1, si-ATP7A-2, Marker.

Fig. 7F: Marker, inhibitor NC + si-NC, inhibitor NC + si-ATP7A, miR-124-3p inhibitor + si-NC, miR-124-3p inhibitor + si-ATP7A.

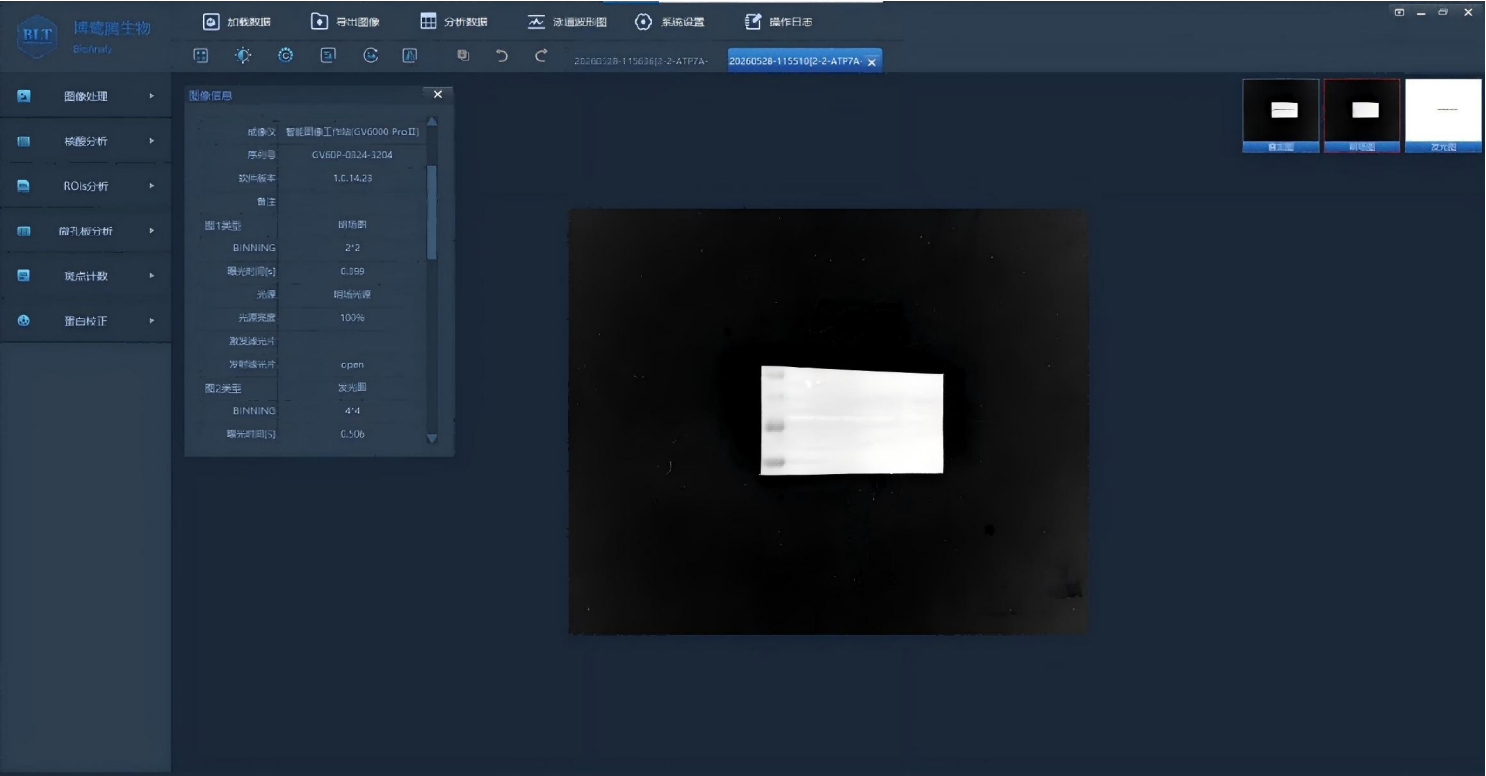
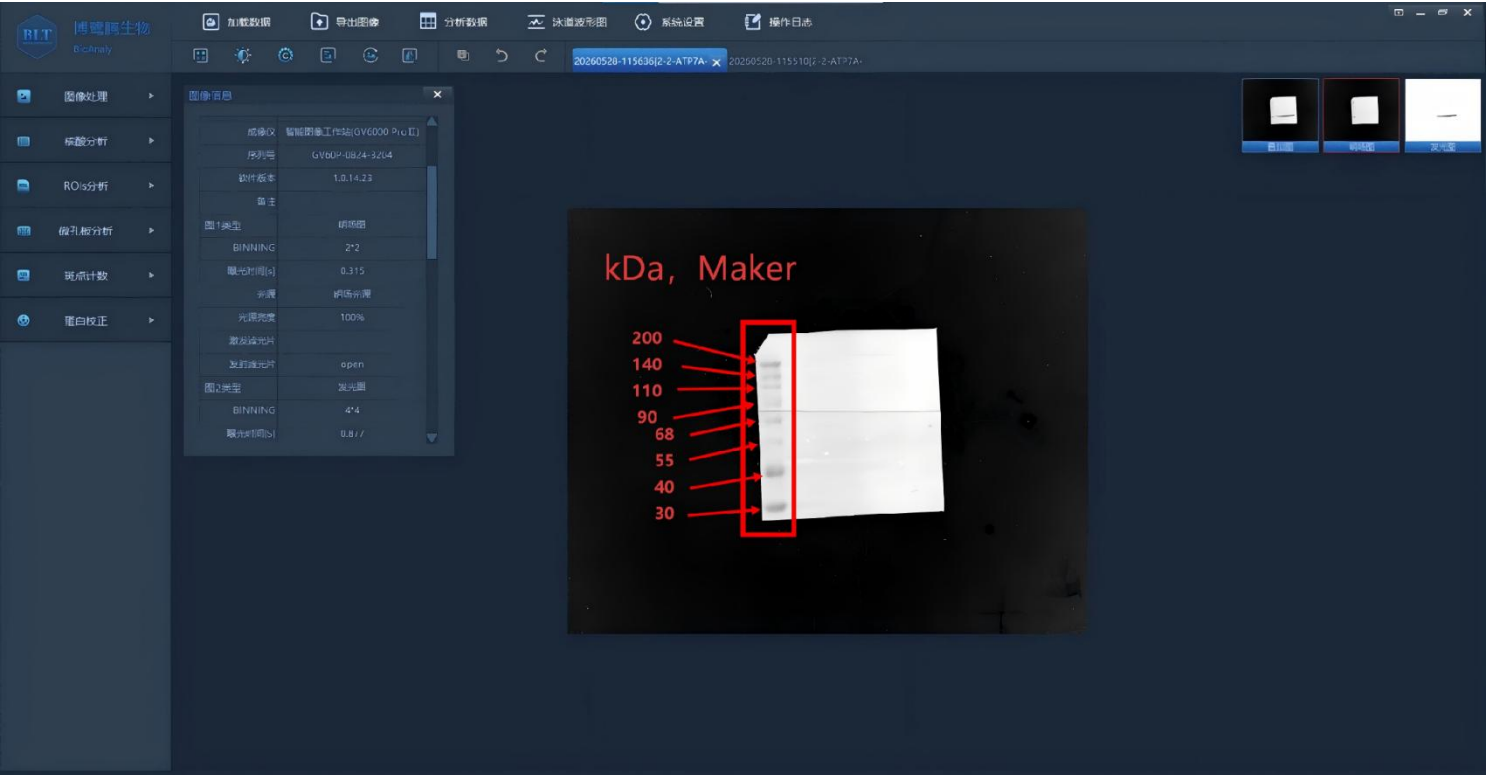
6. Raw Western blot images: bright-field, chemiluminescence exposure, overlay images with molecular-weight marker labels:

Fig. 4C: ATP7A、 β -actin

Luminescence:



Bright-field+luminescence



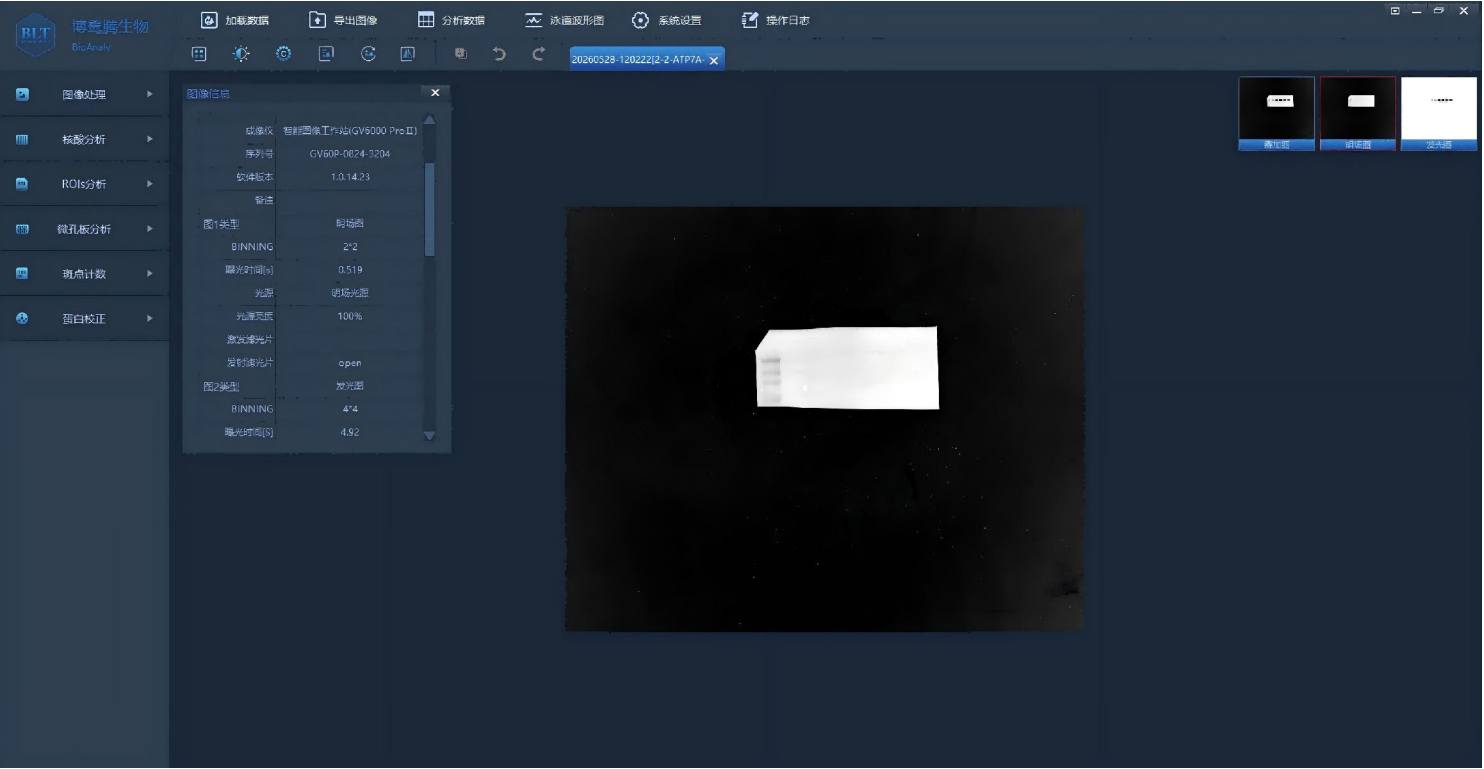
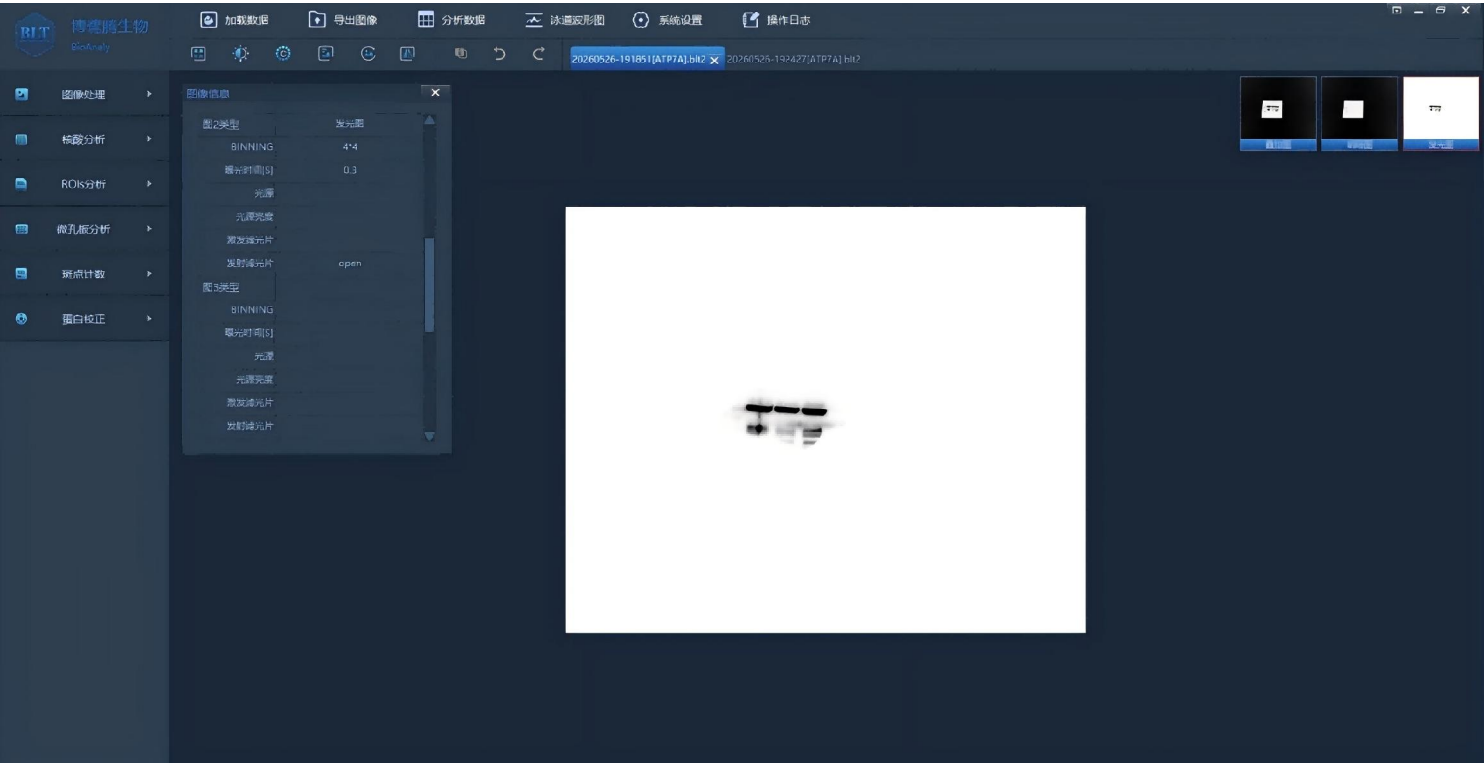
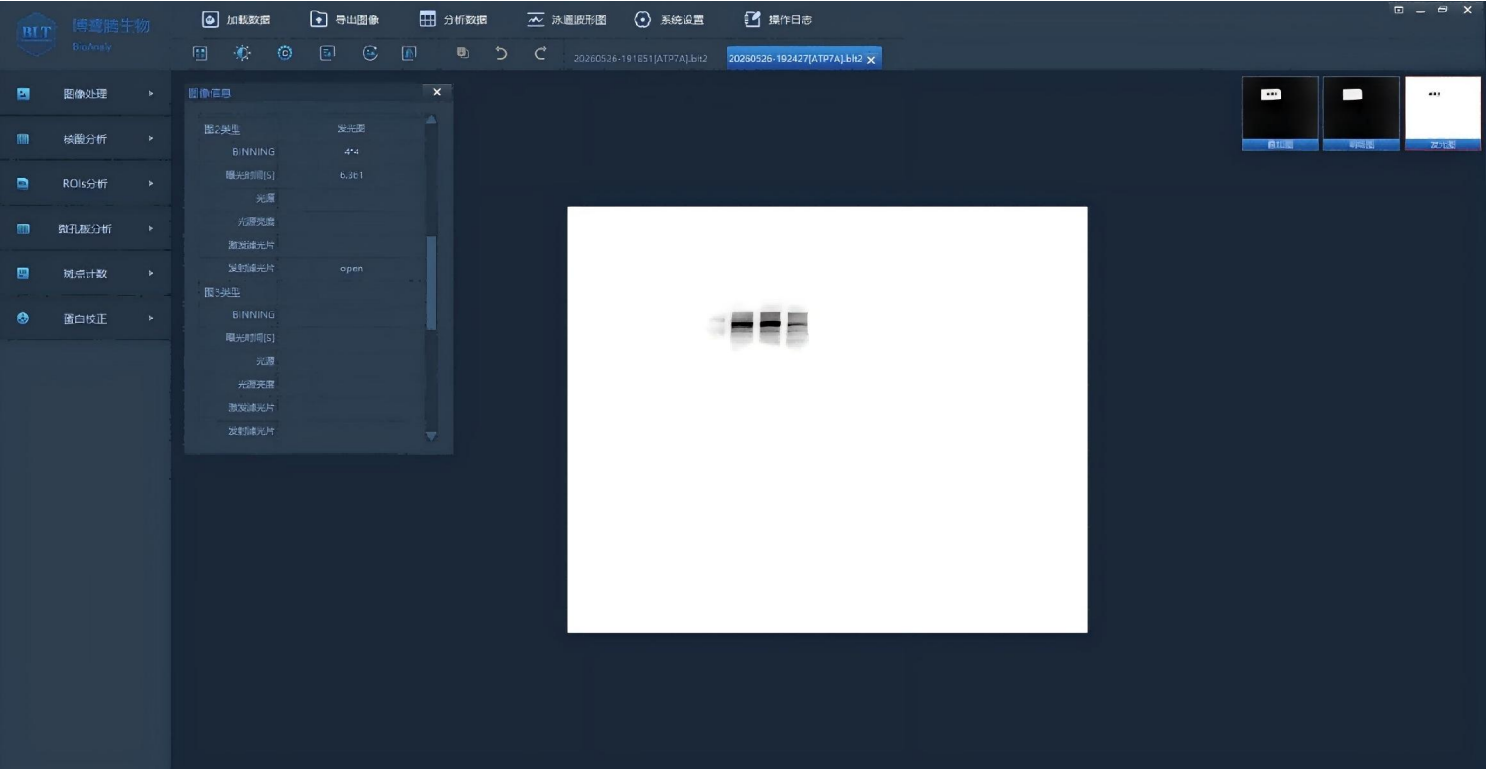


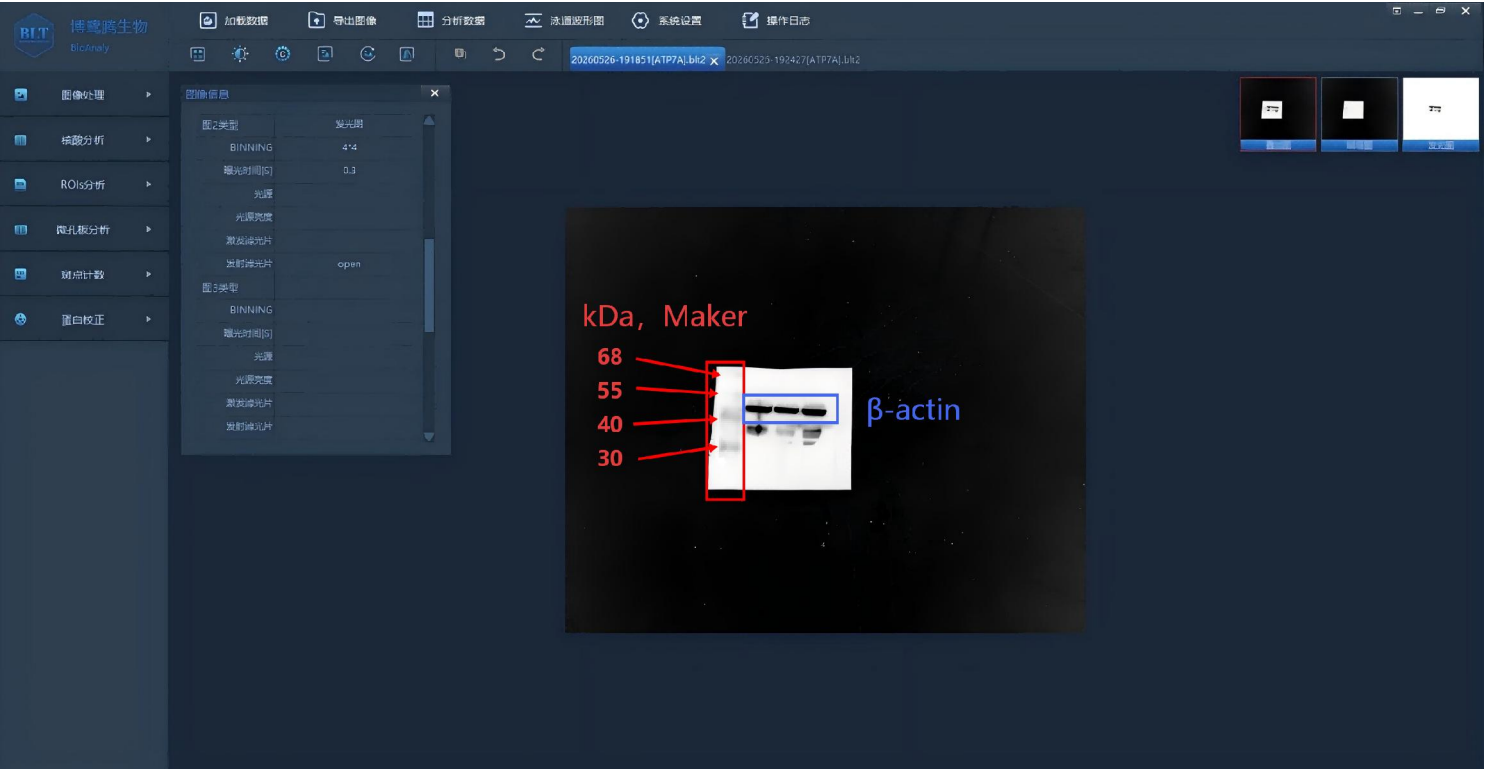
Fig. 5D: ATP7A、 β -actin

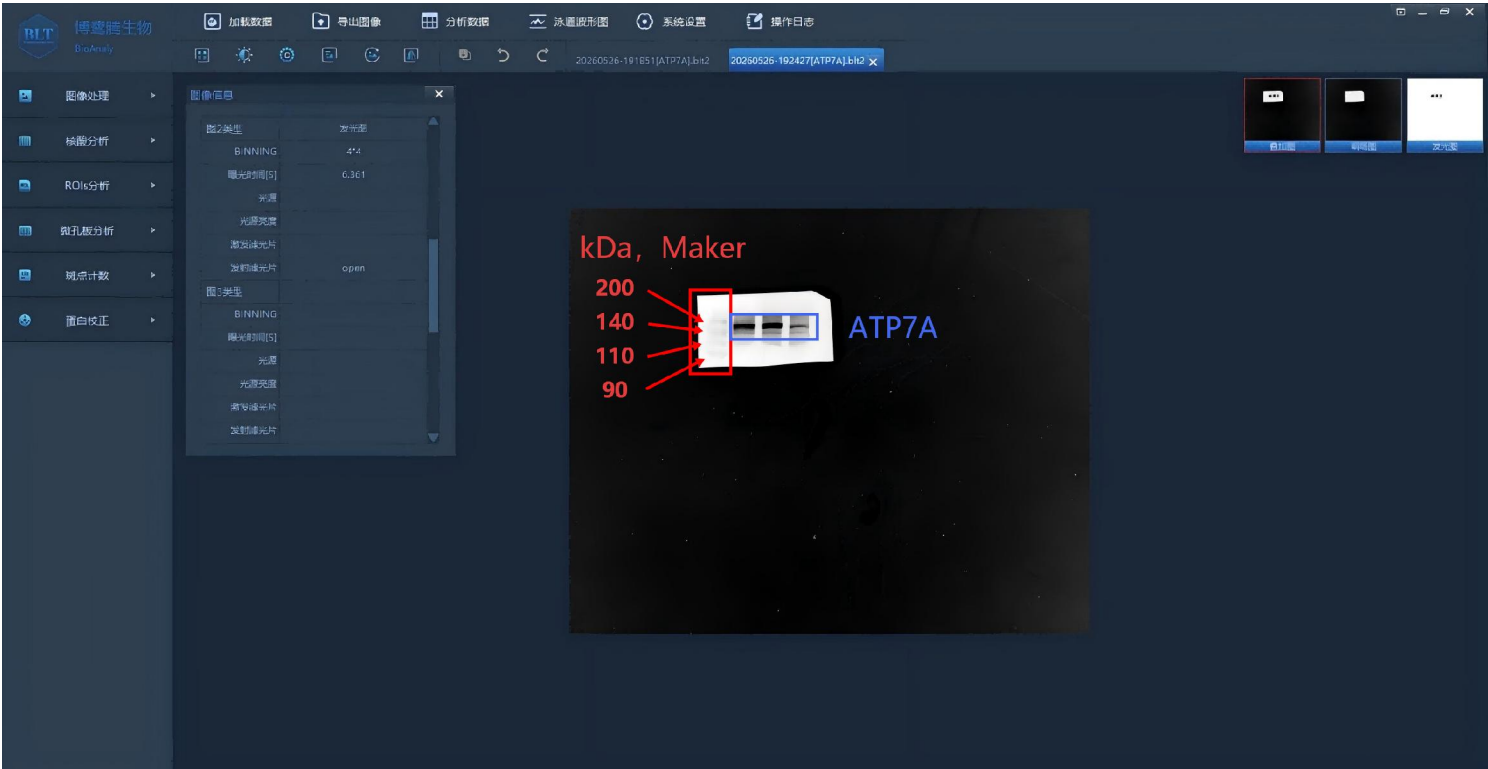
Luminescence:



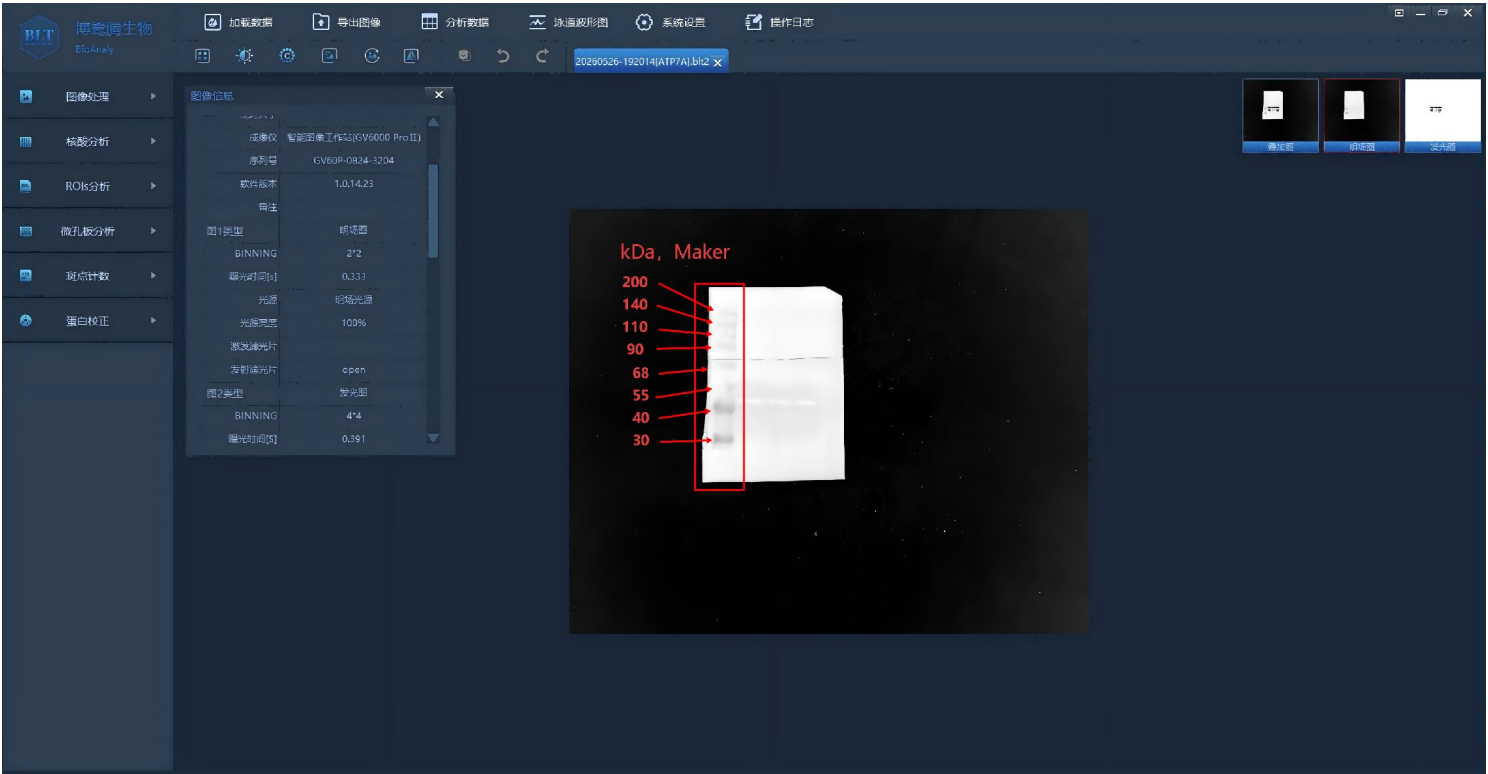


brightfield+luminescence





Bright-field



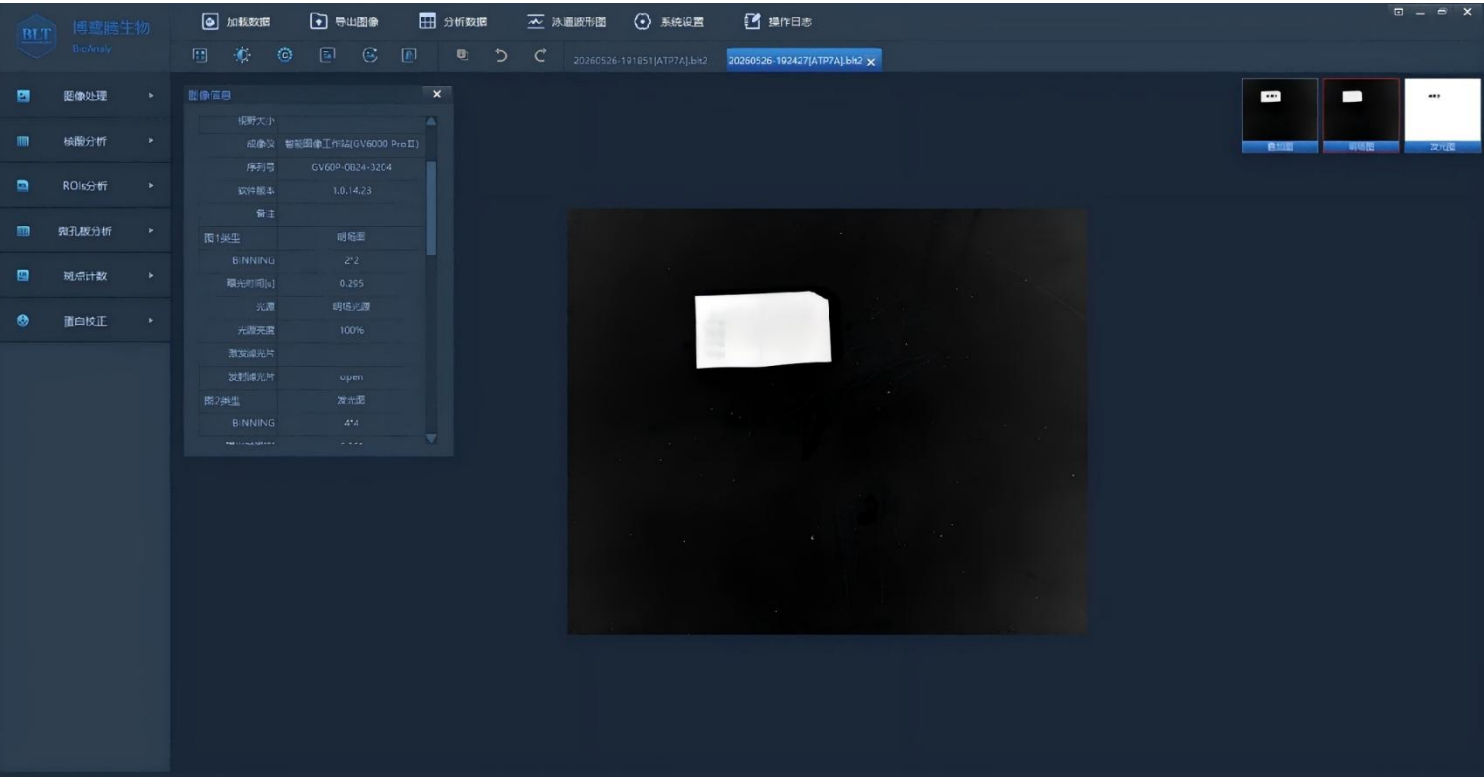
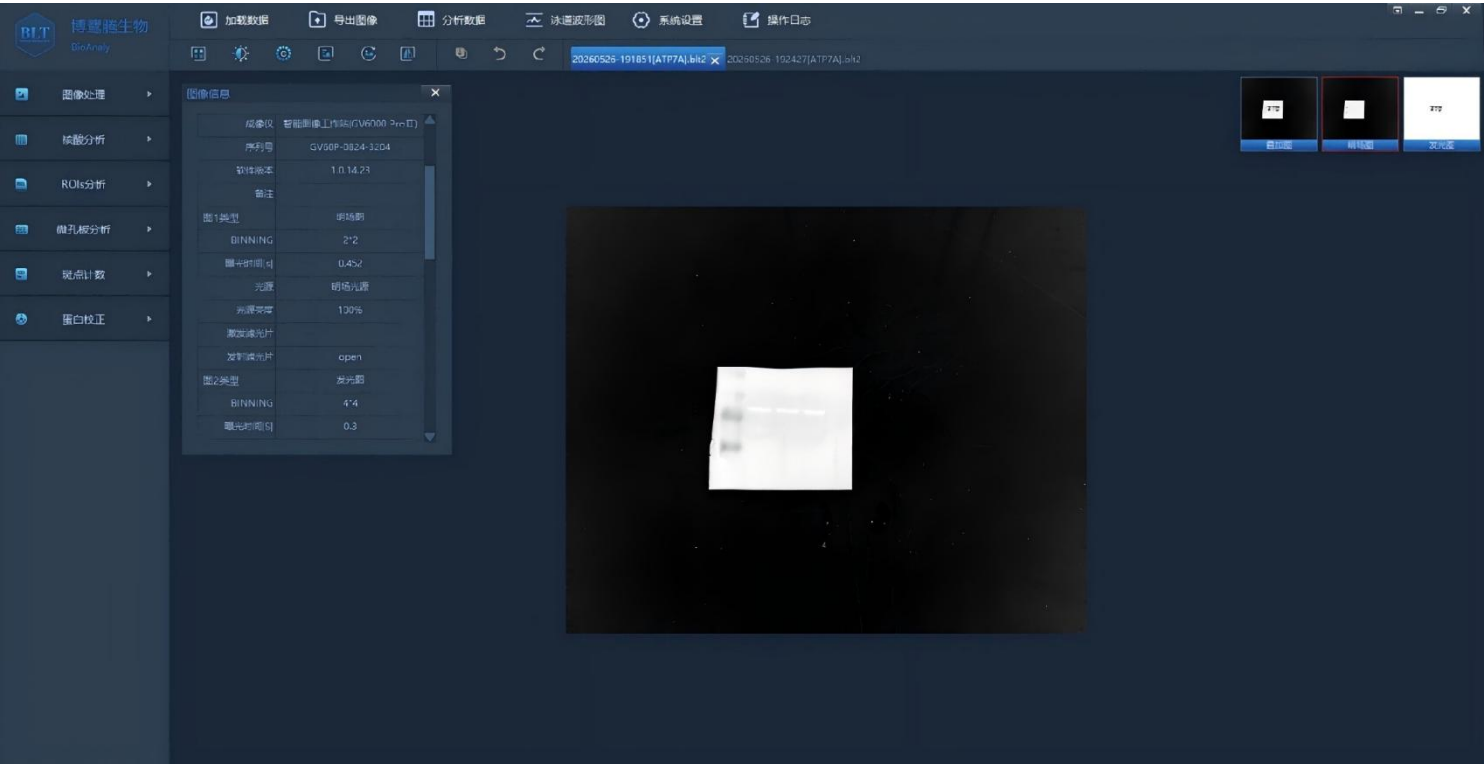
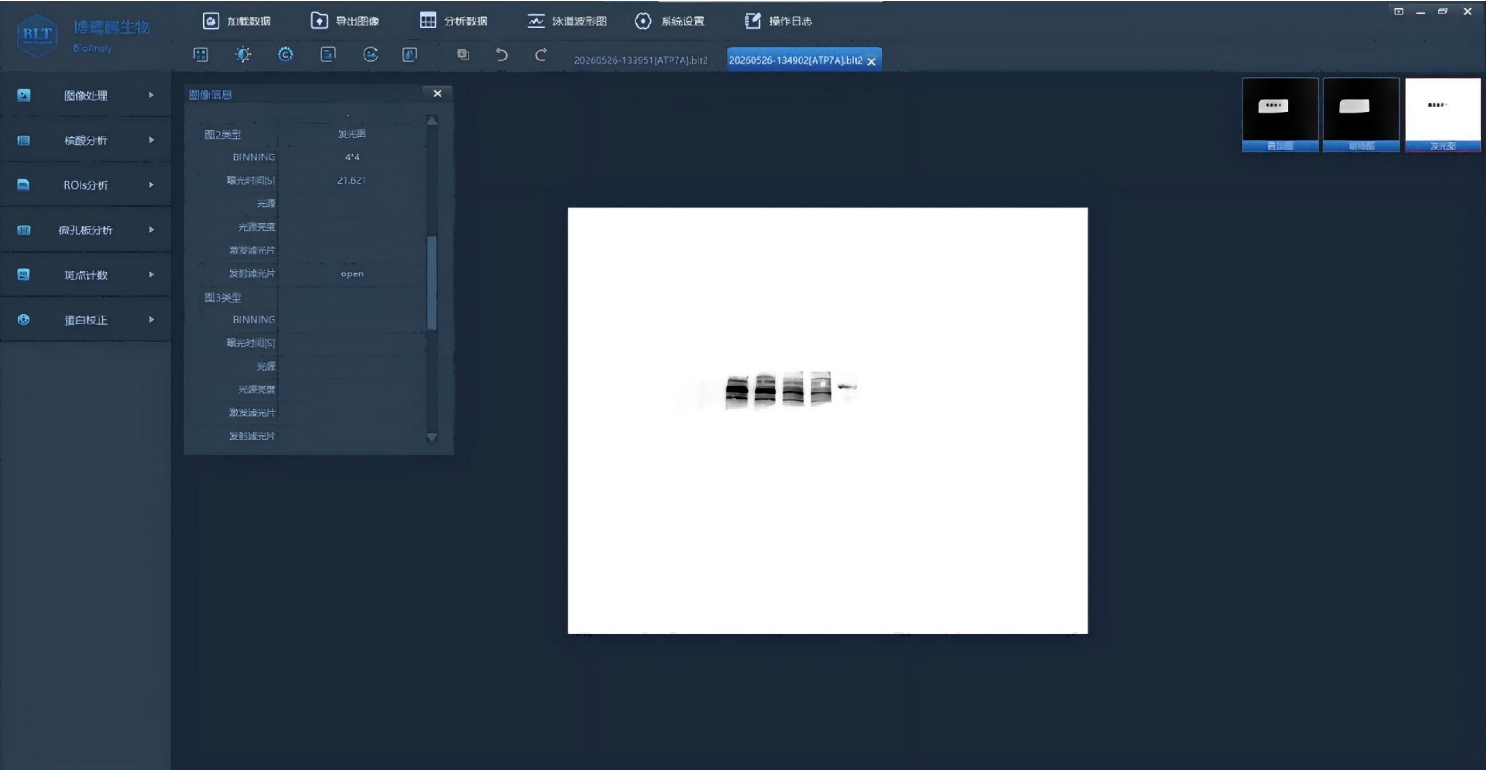
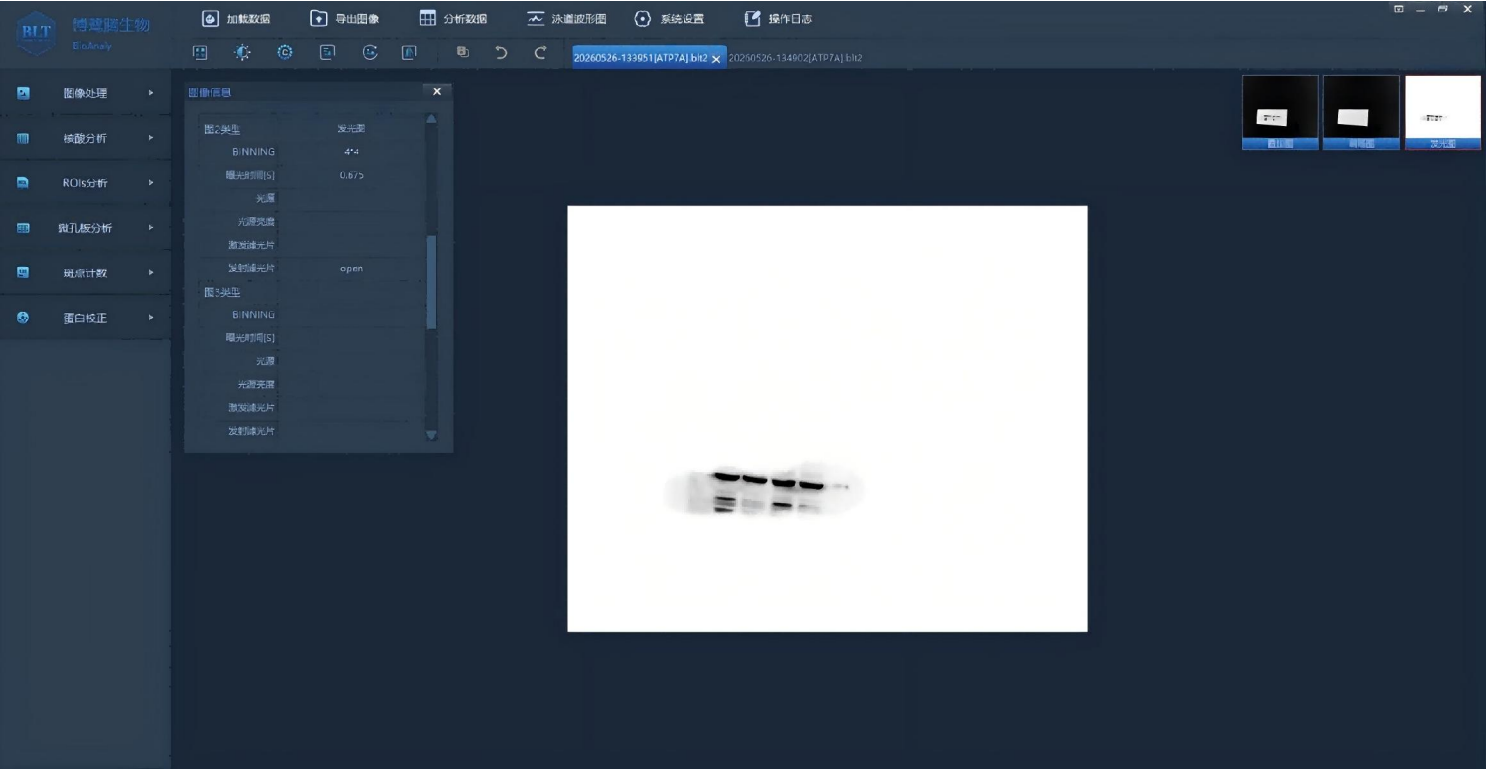
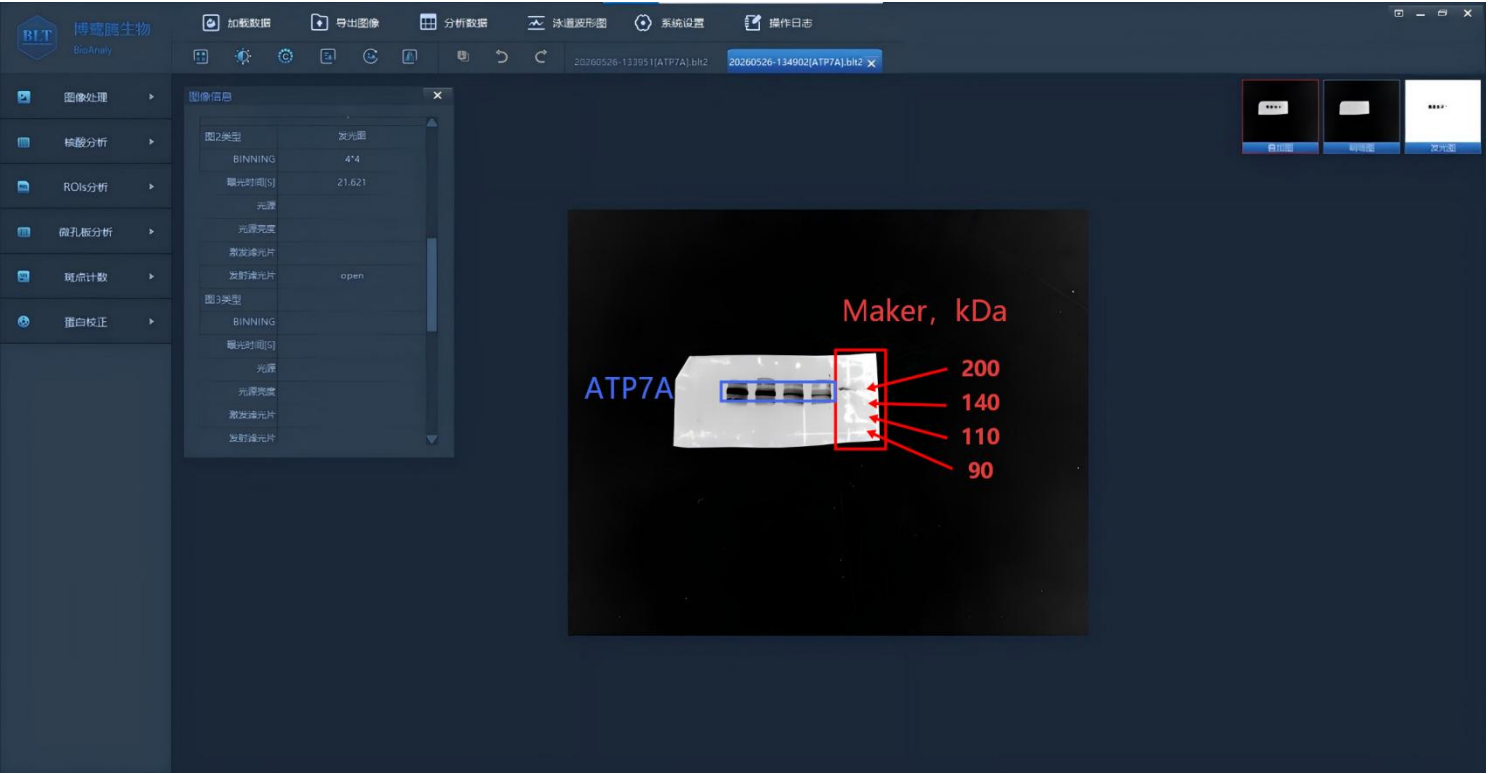
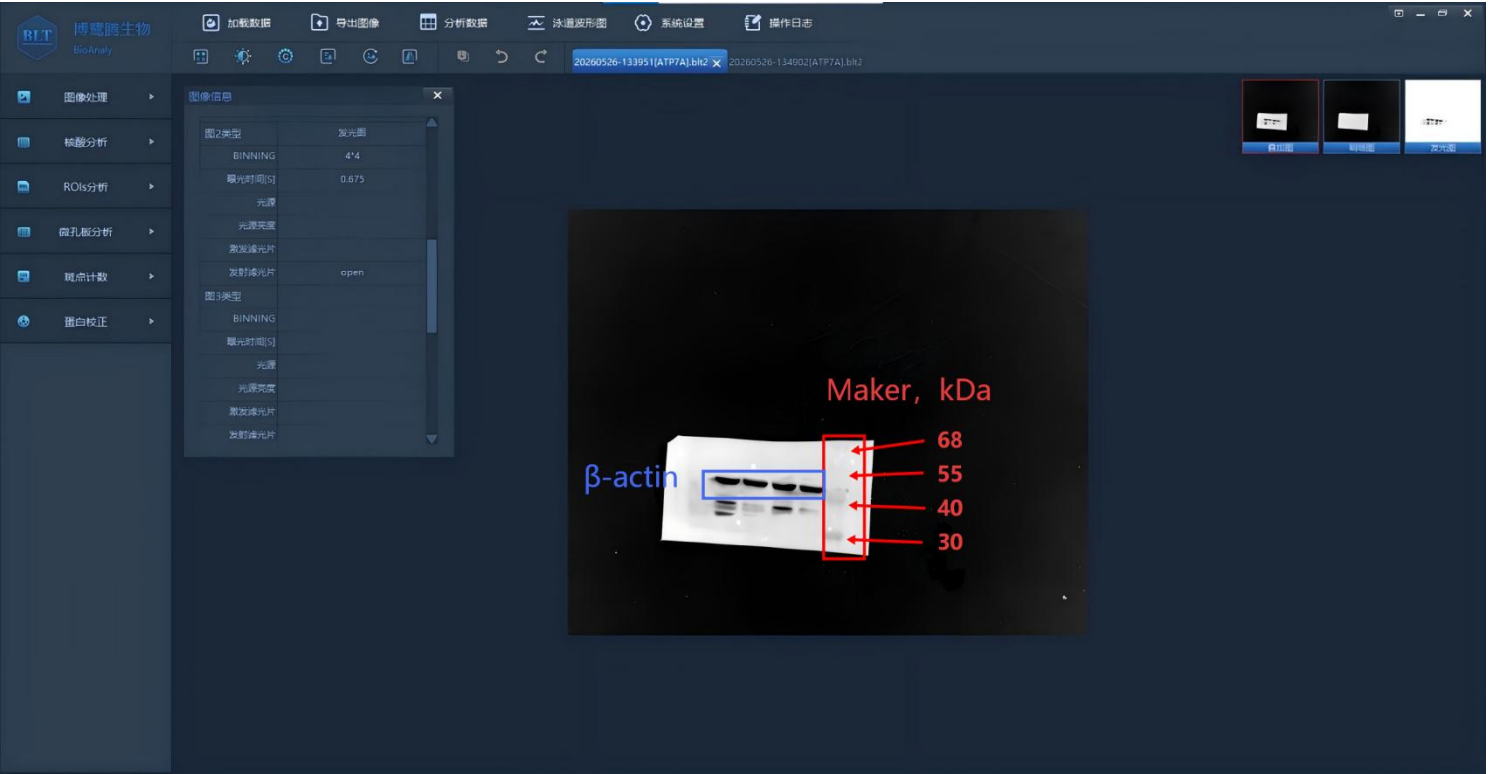


Fig. 7C: ATP7A、 β -actin

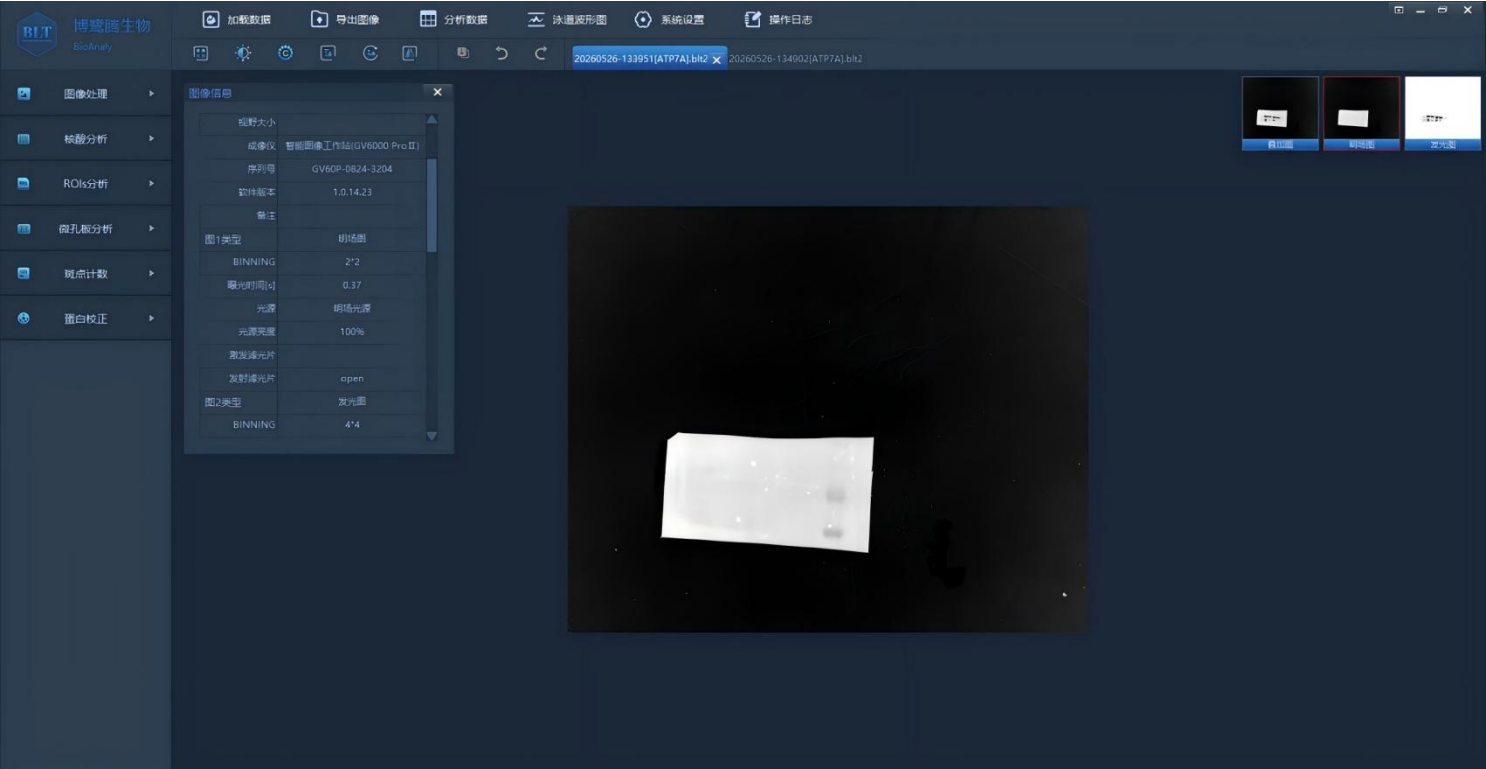
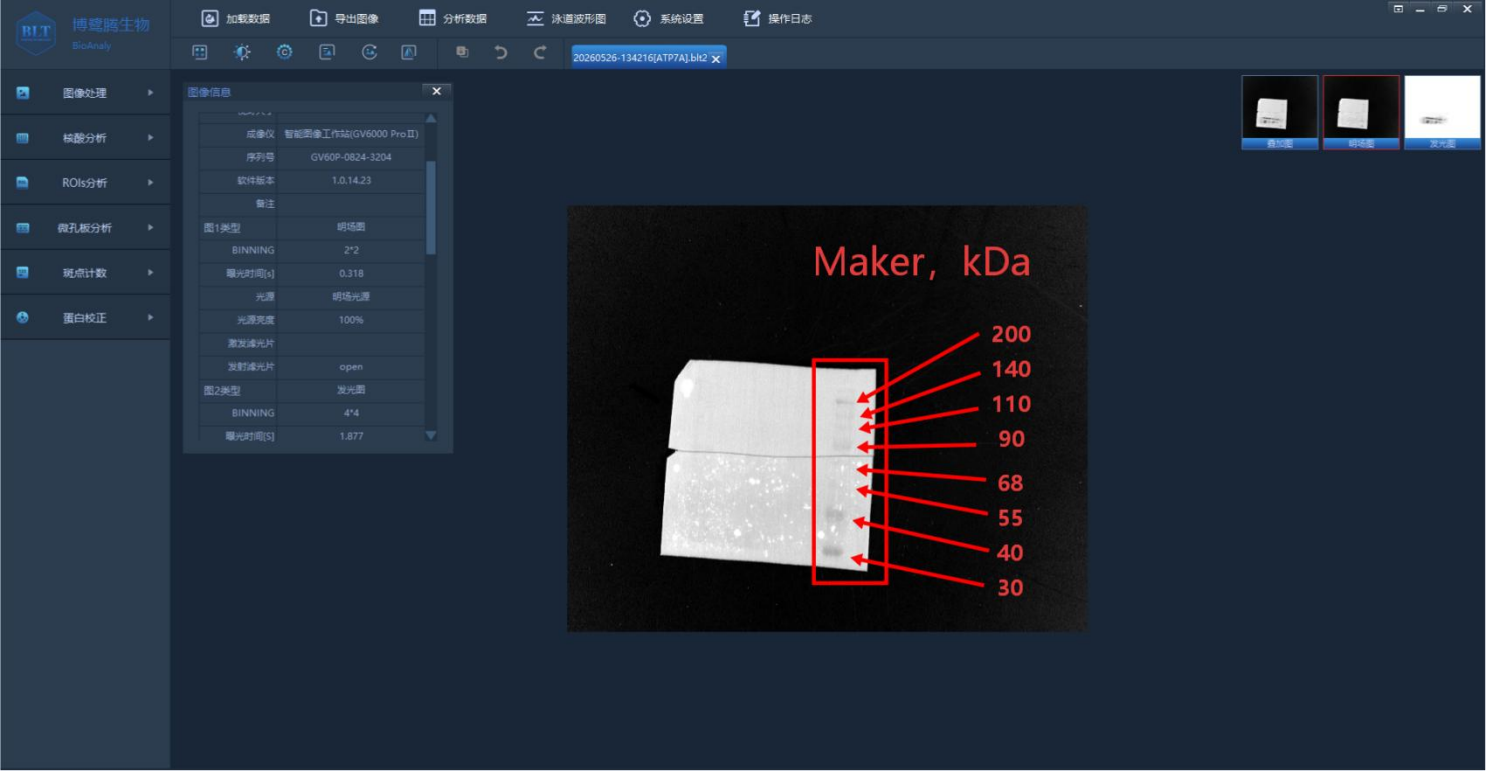
Luminescence:



brightfield+luminescence:



Bright-field:



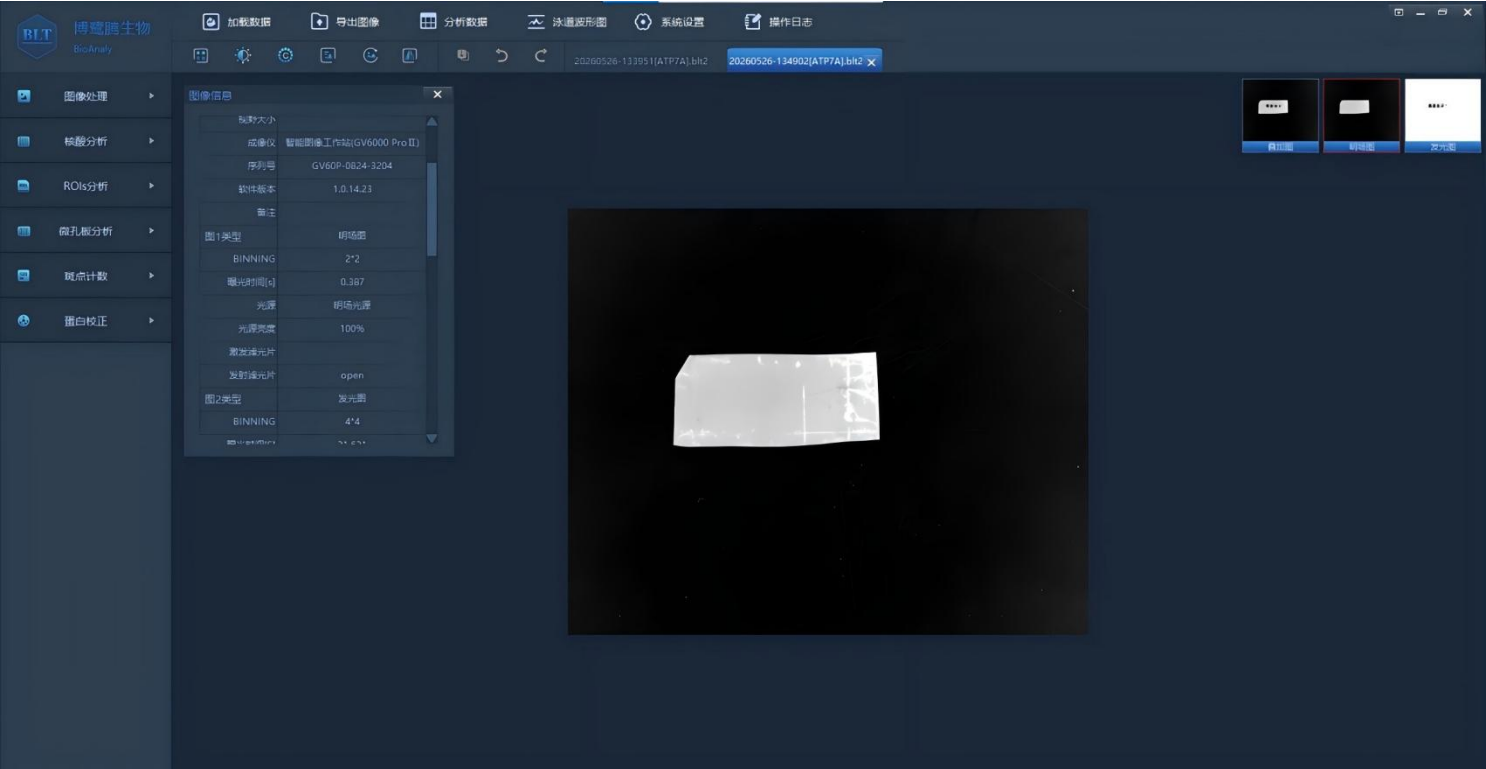
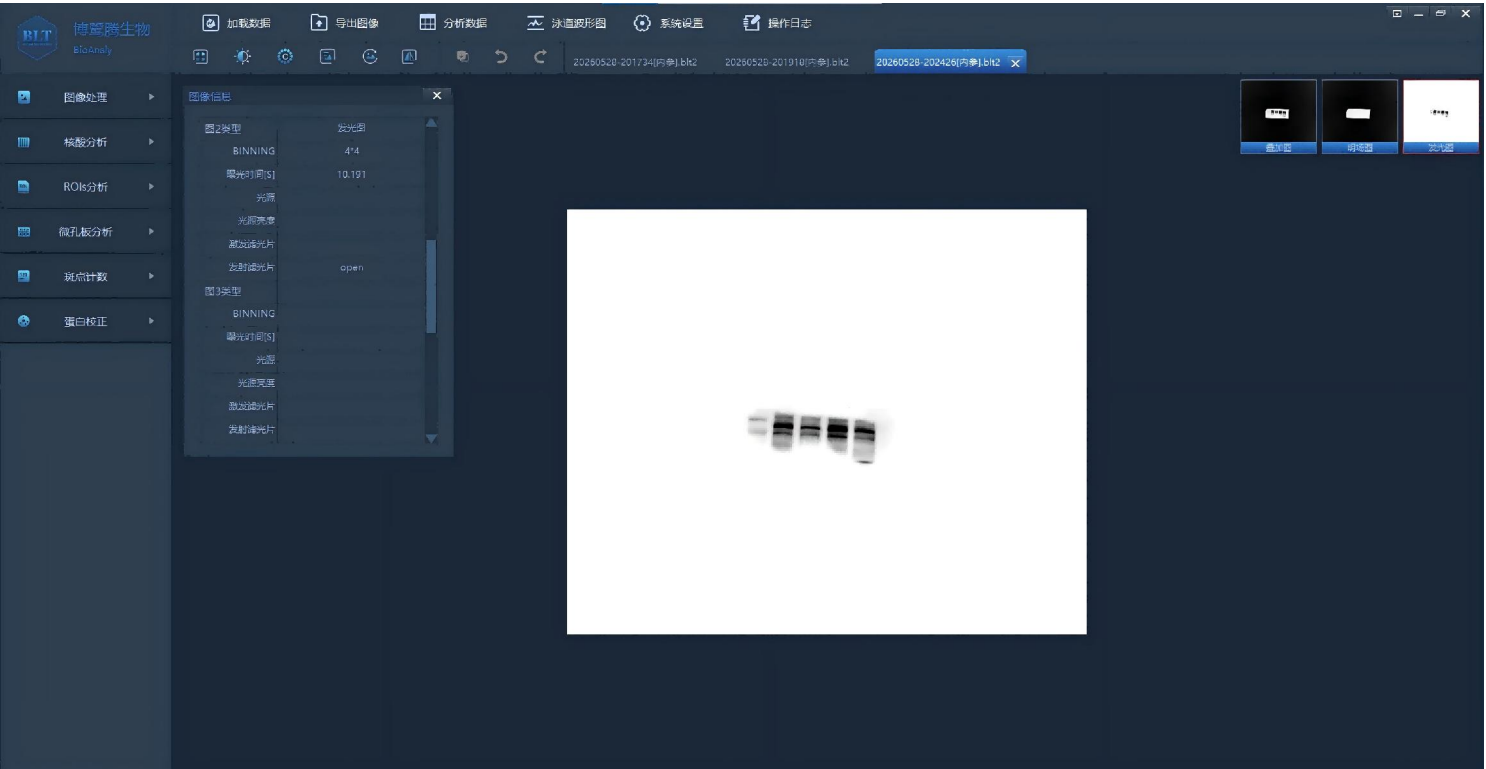
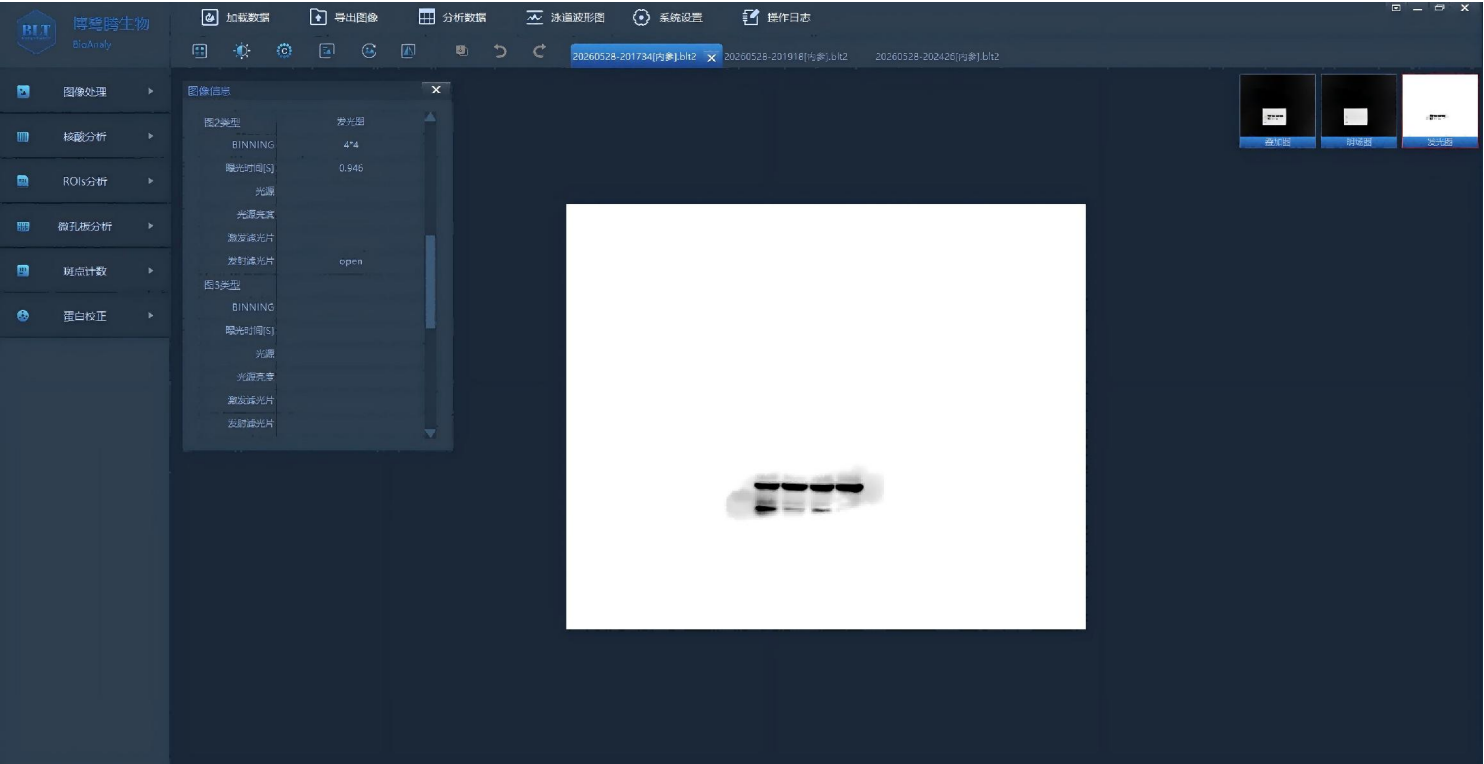


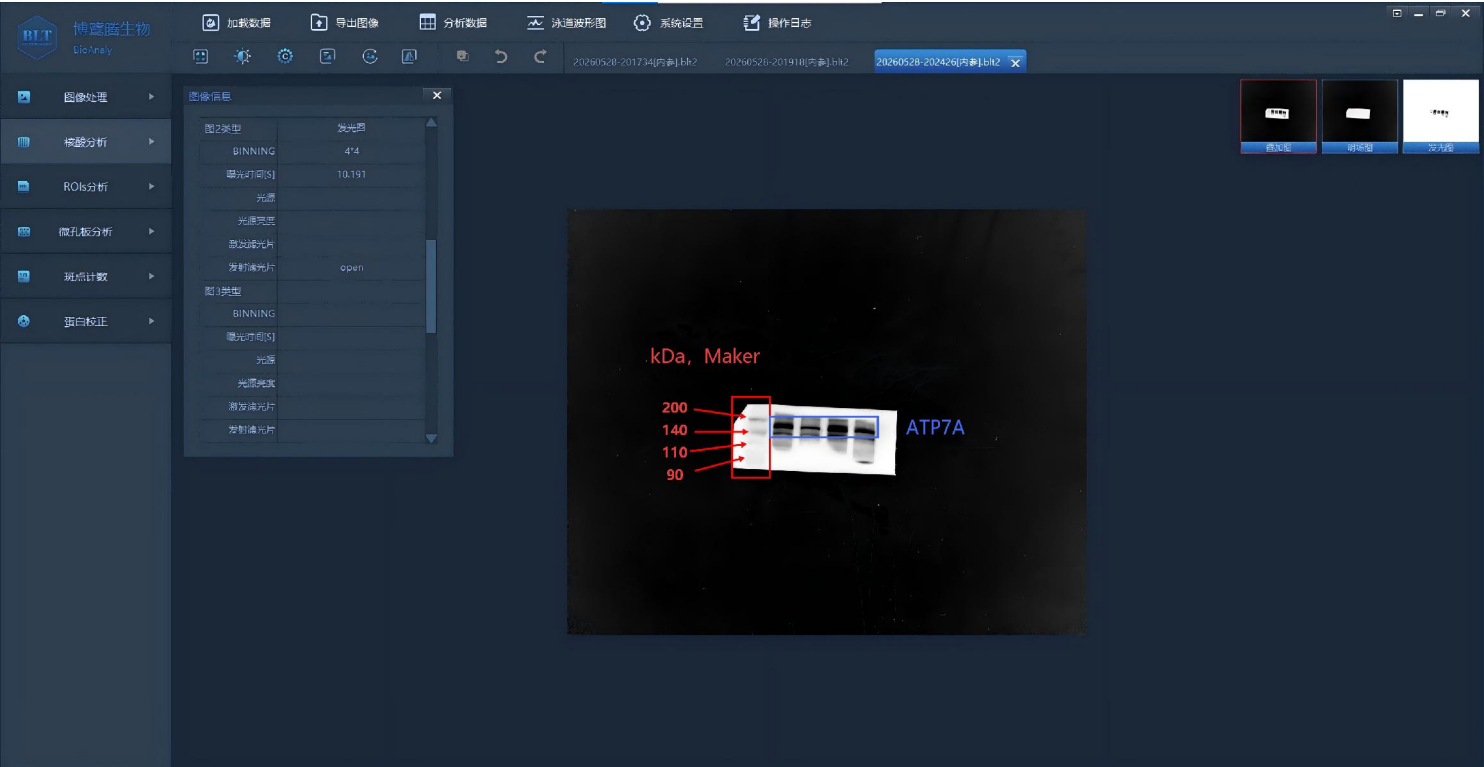
Fig. 7F:

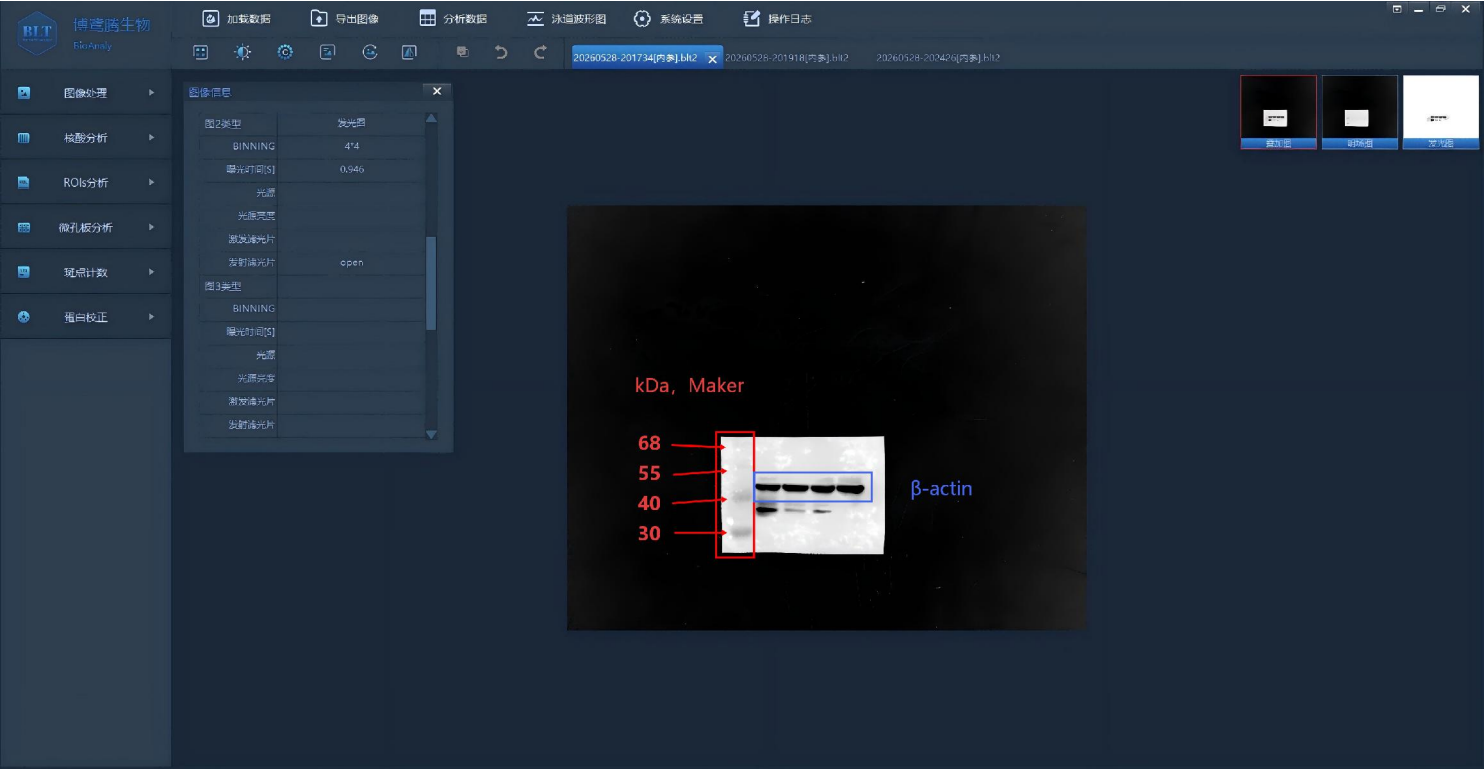
ATP7A, luminescence:



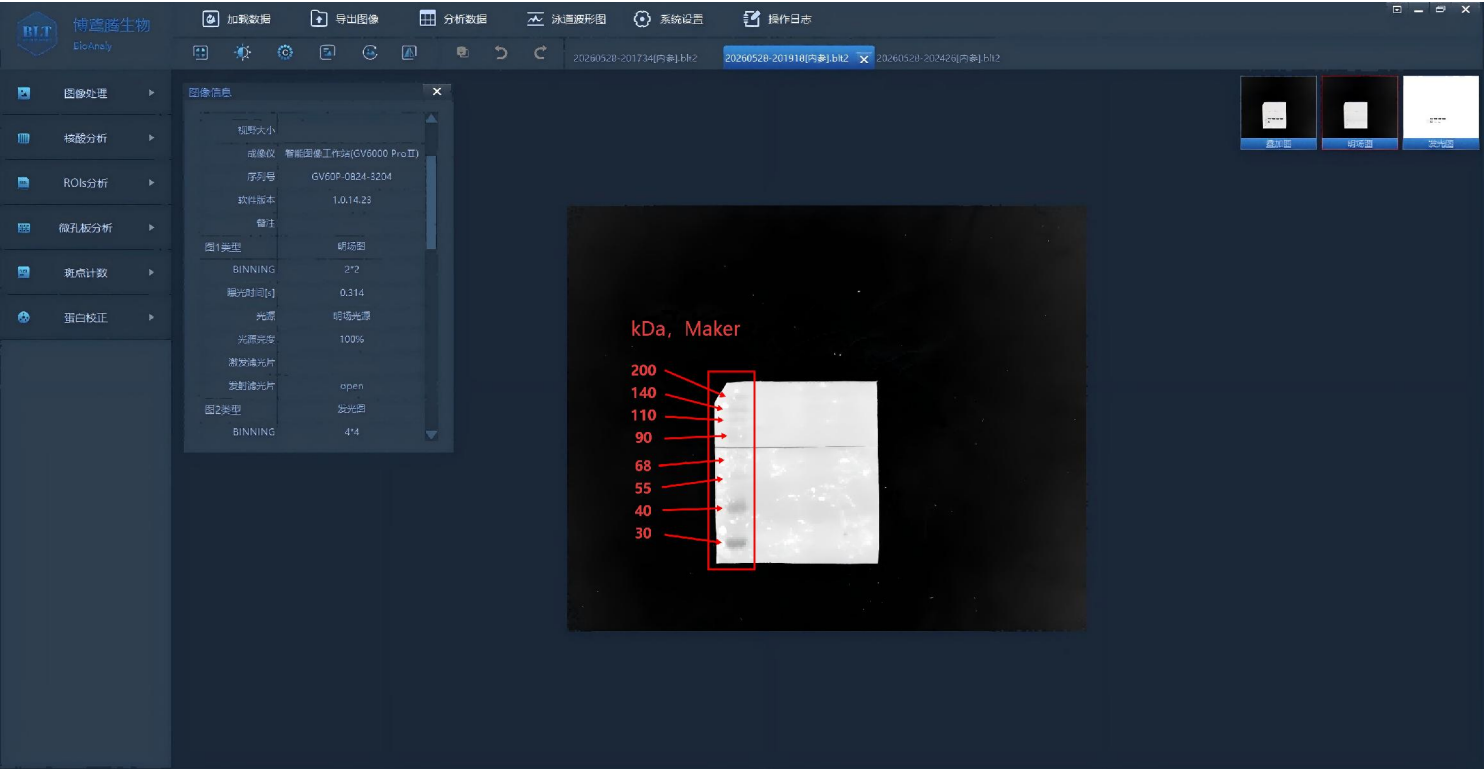


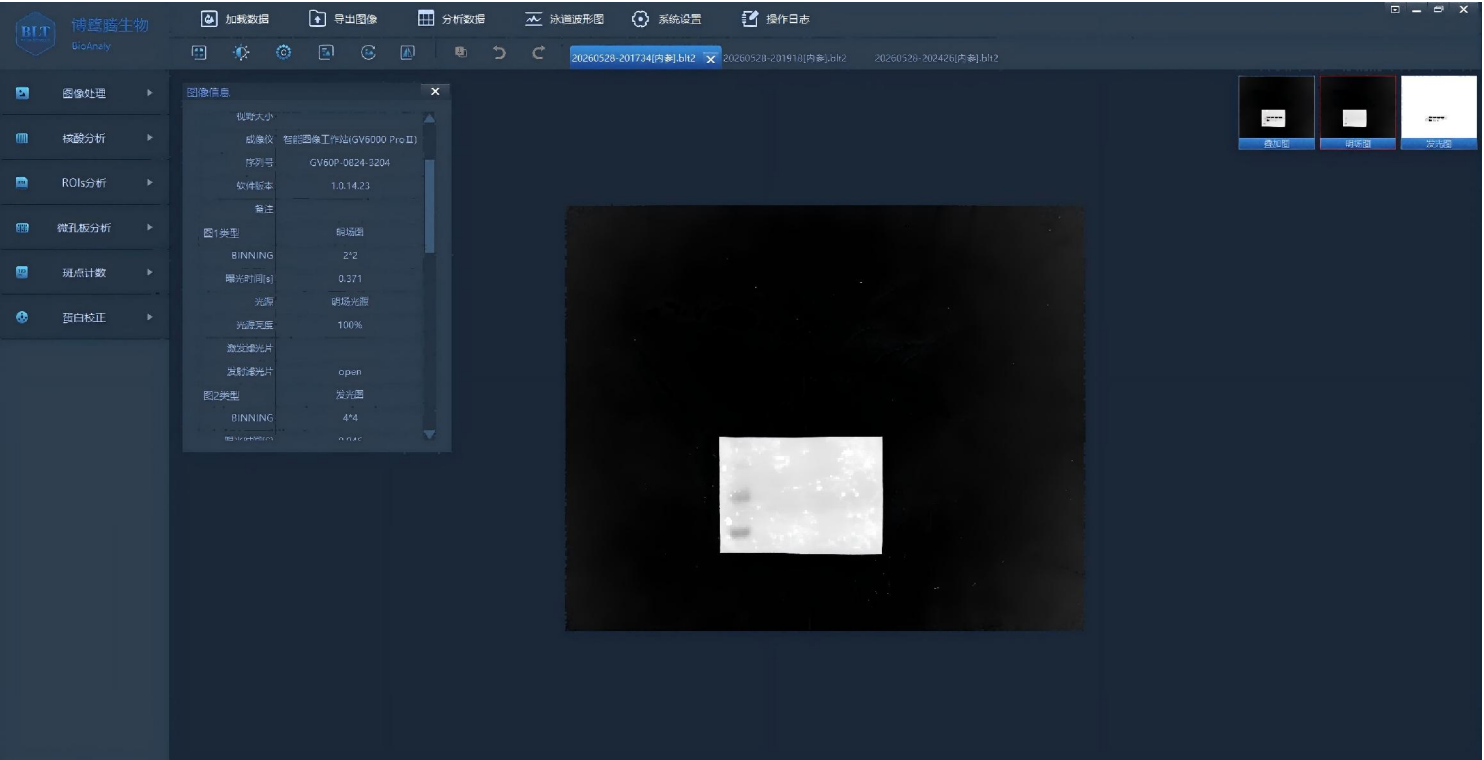
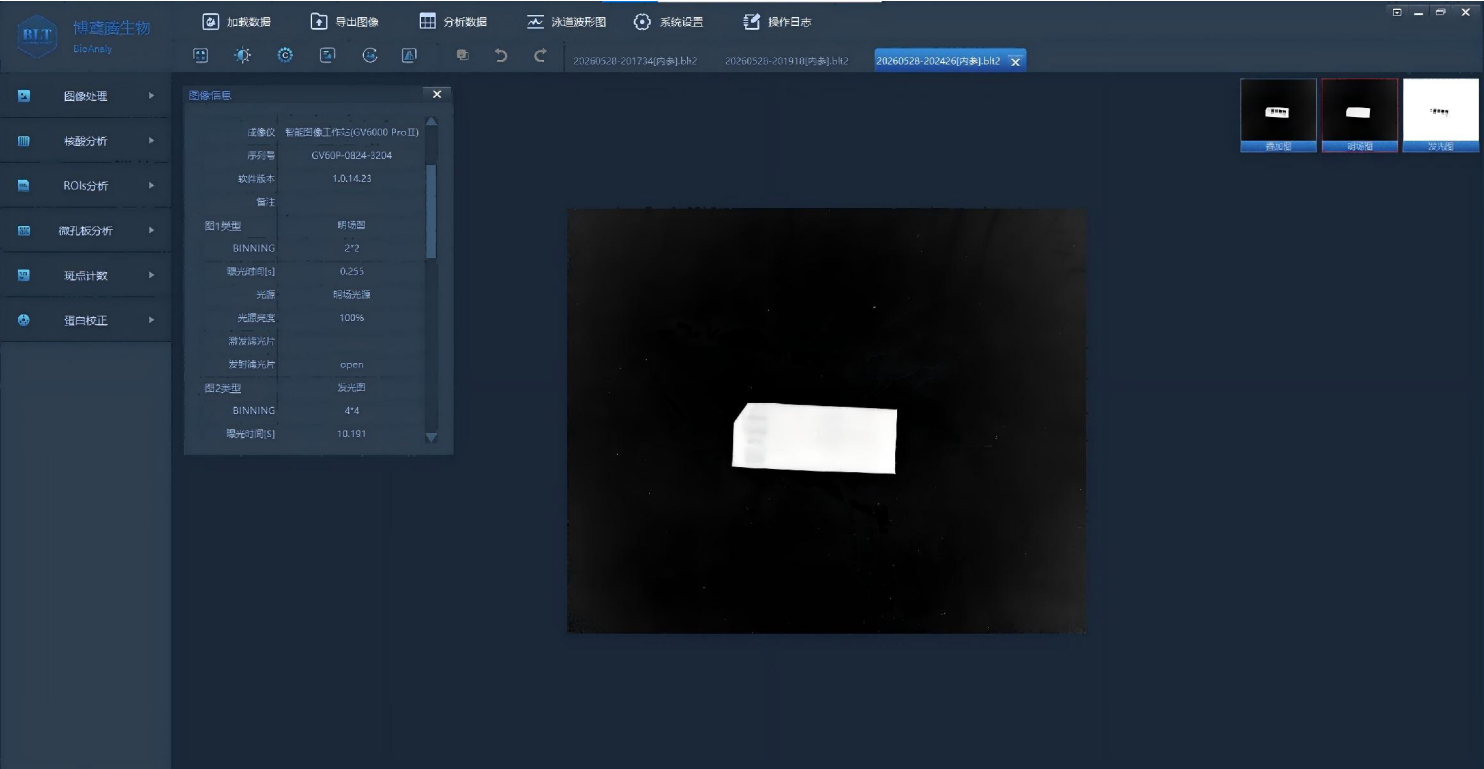
ATP7A, brightfield+luminescence:





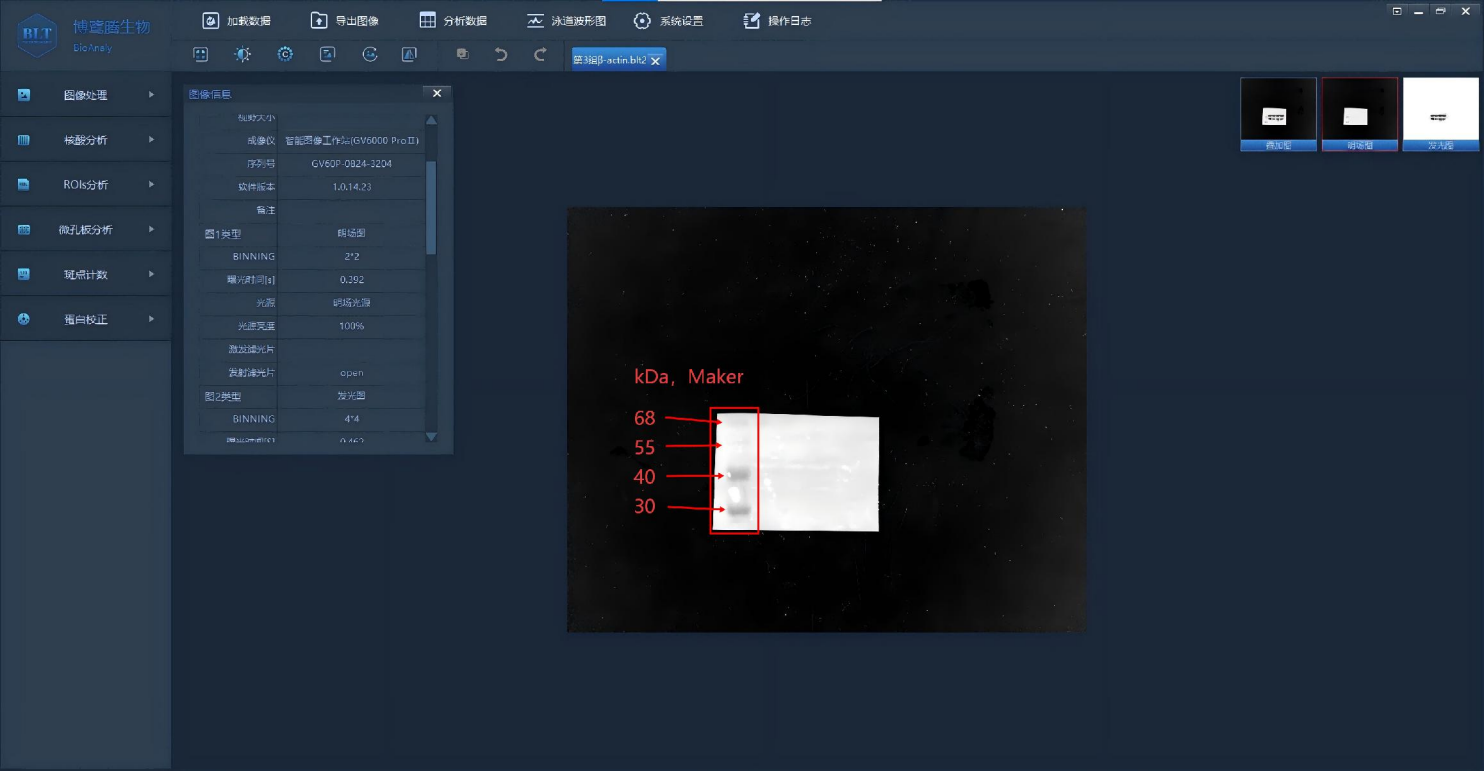
ATP7A, bright-field:



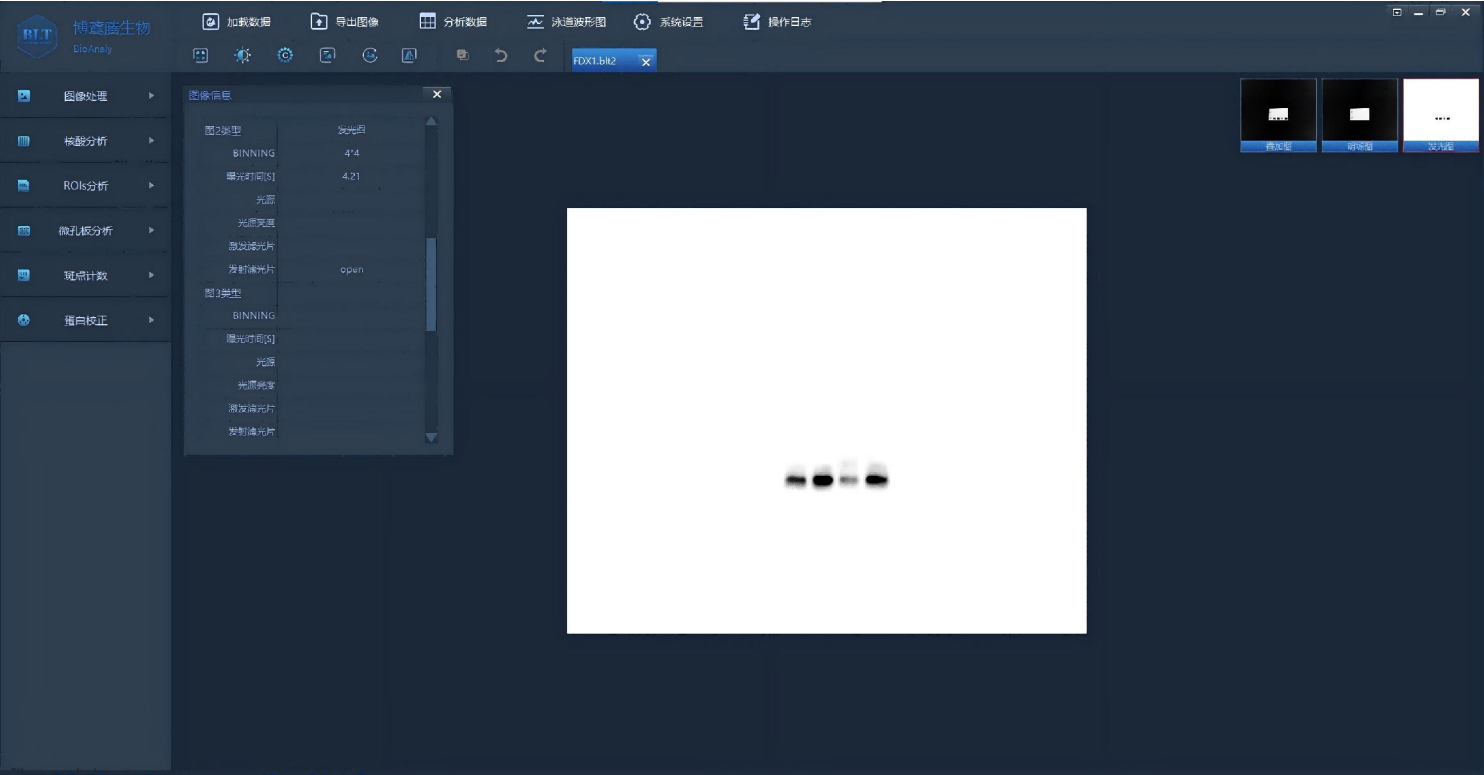


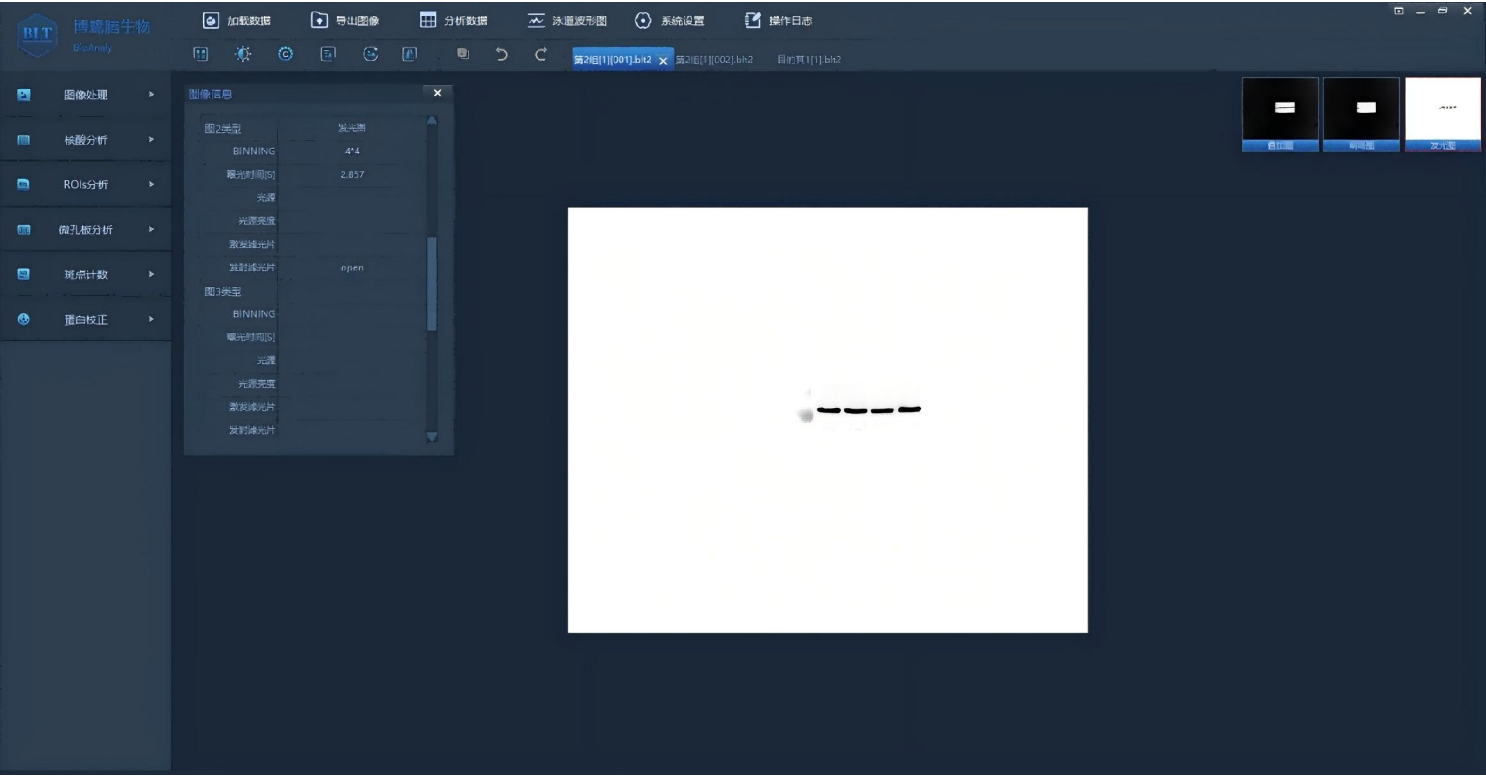
shared loading control: β -actin (Fig. 7F)

The screenshot displays the Bio-Army software interface. The top menu bar includes options for loading data, exporting images, analyzing data, generating gel diagrams, system settings, and operation logs. The left sidebar provides navigation for image processing, nucleic acid analysis, ROIs analysis, microplate analysis, spot counting, and protein correction. The central panel shows the 'Image Information' (图像信息) window, which details the parameters for the current image, including the figure type (图2类型), binning, exposure time (曝光时间), light source (光源), light path (光源光路), and filter (滤光片). The main image area displays a fluorescence microscopy image of a gel, showing several lanes with distinct bands. On the right side, there are three small thumbnail images labeled '图1图', '图2图', and '图3图'.

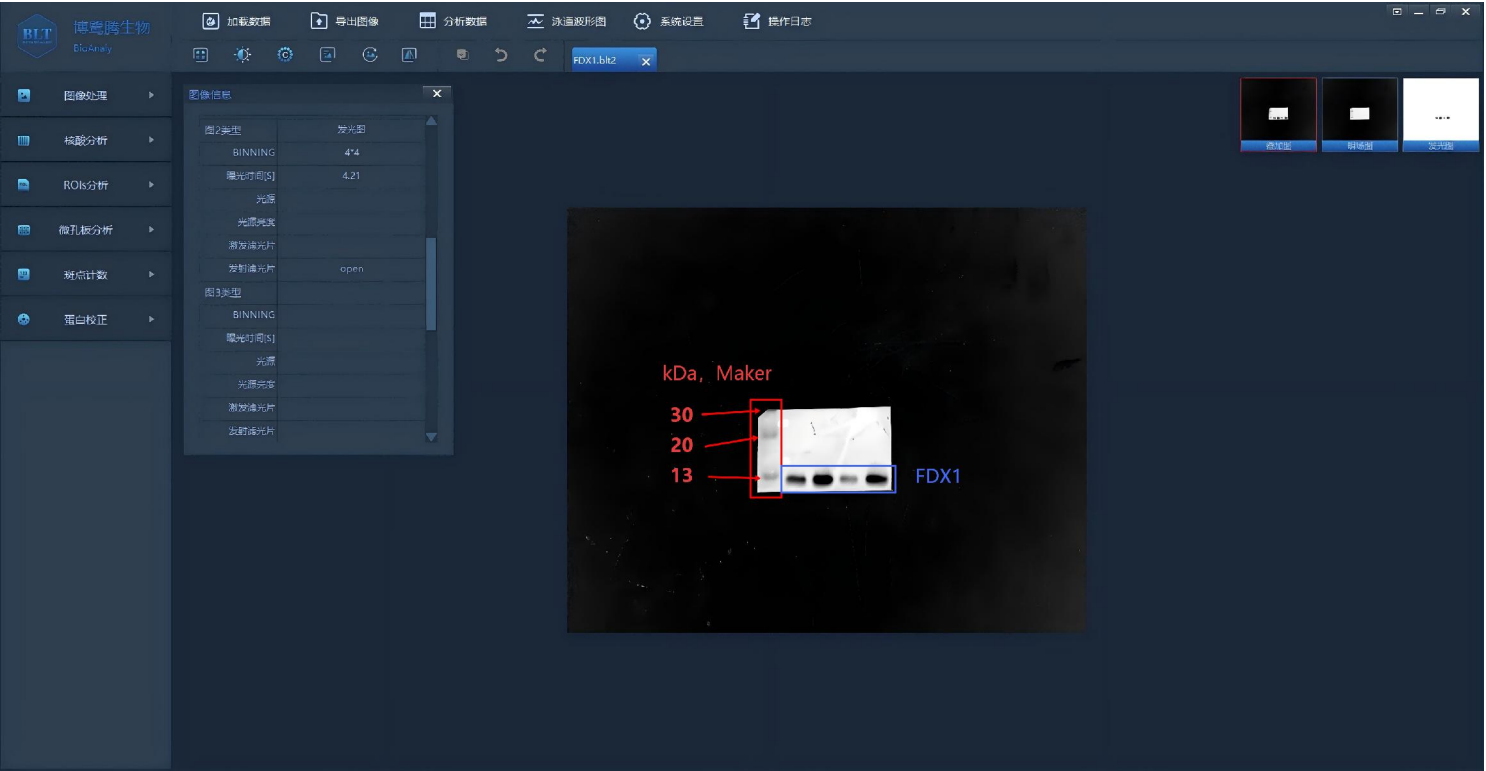


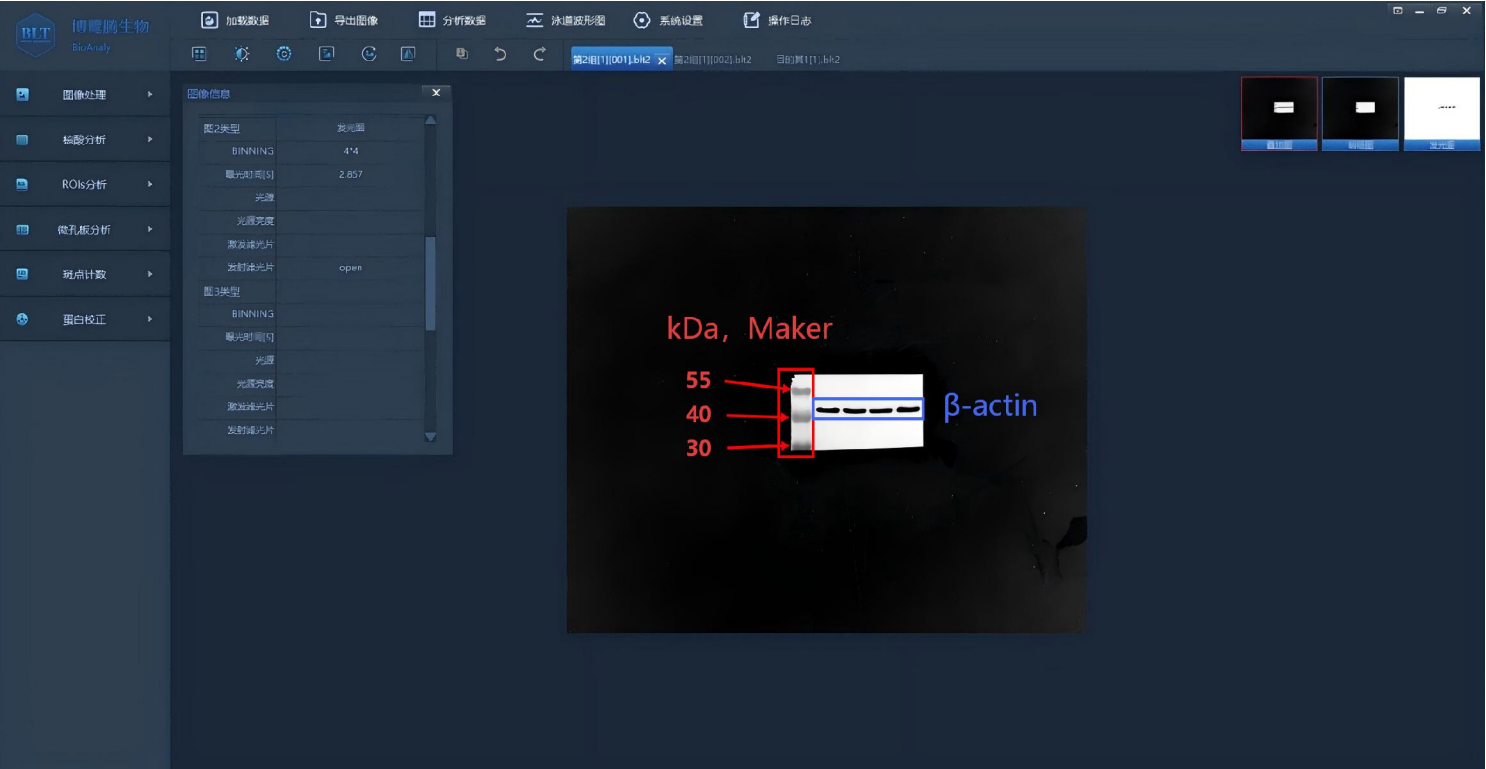
FDX1, luminescence:



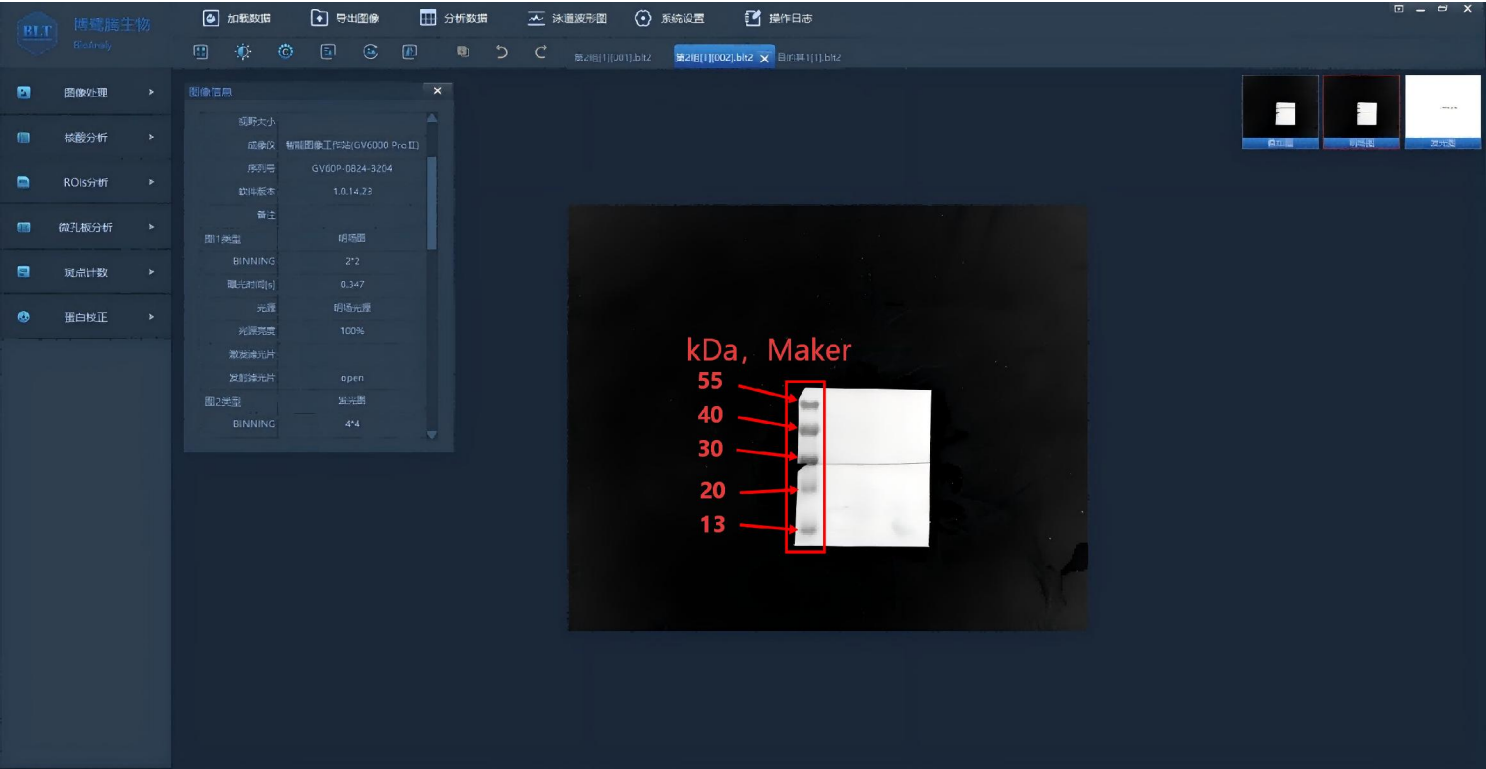


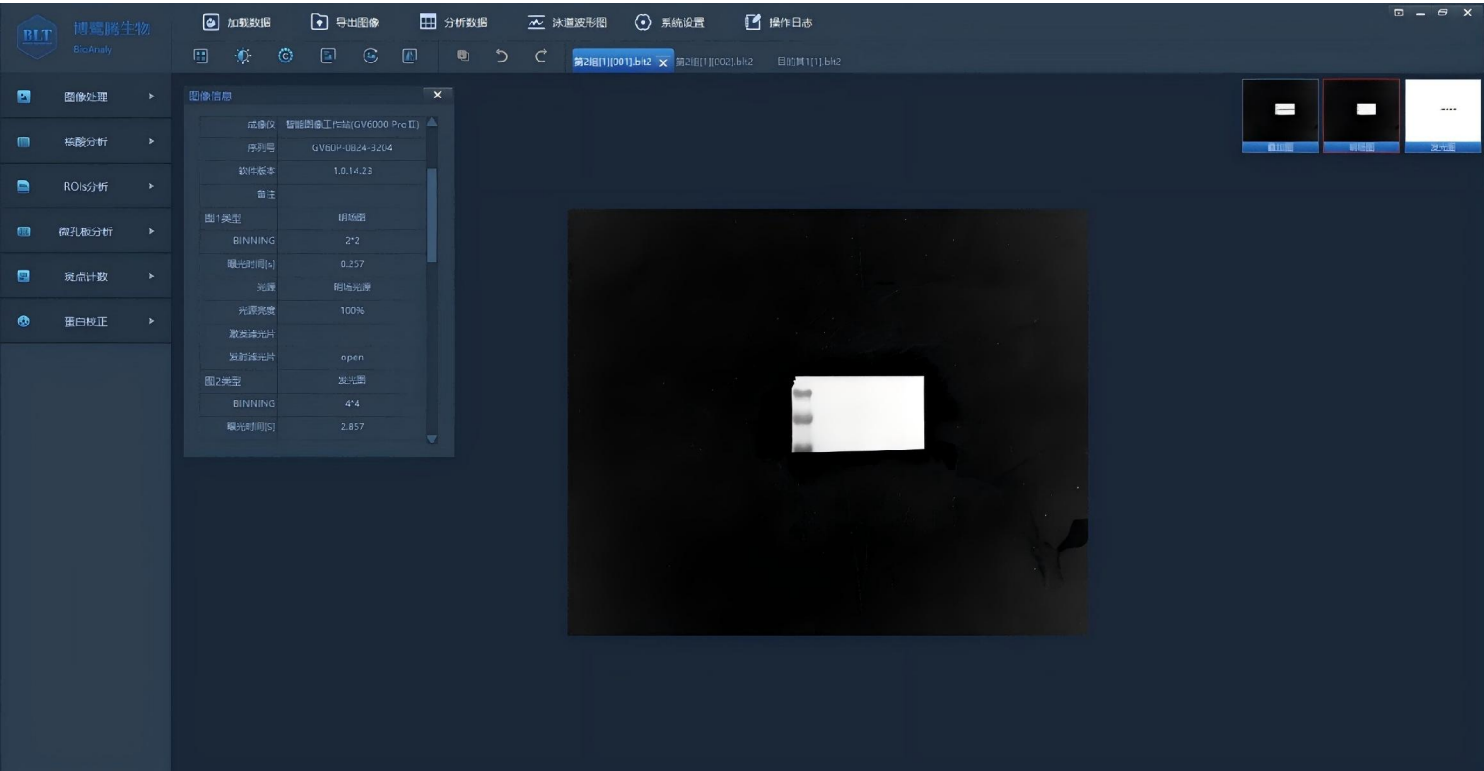
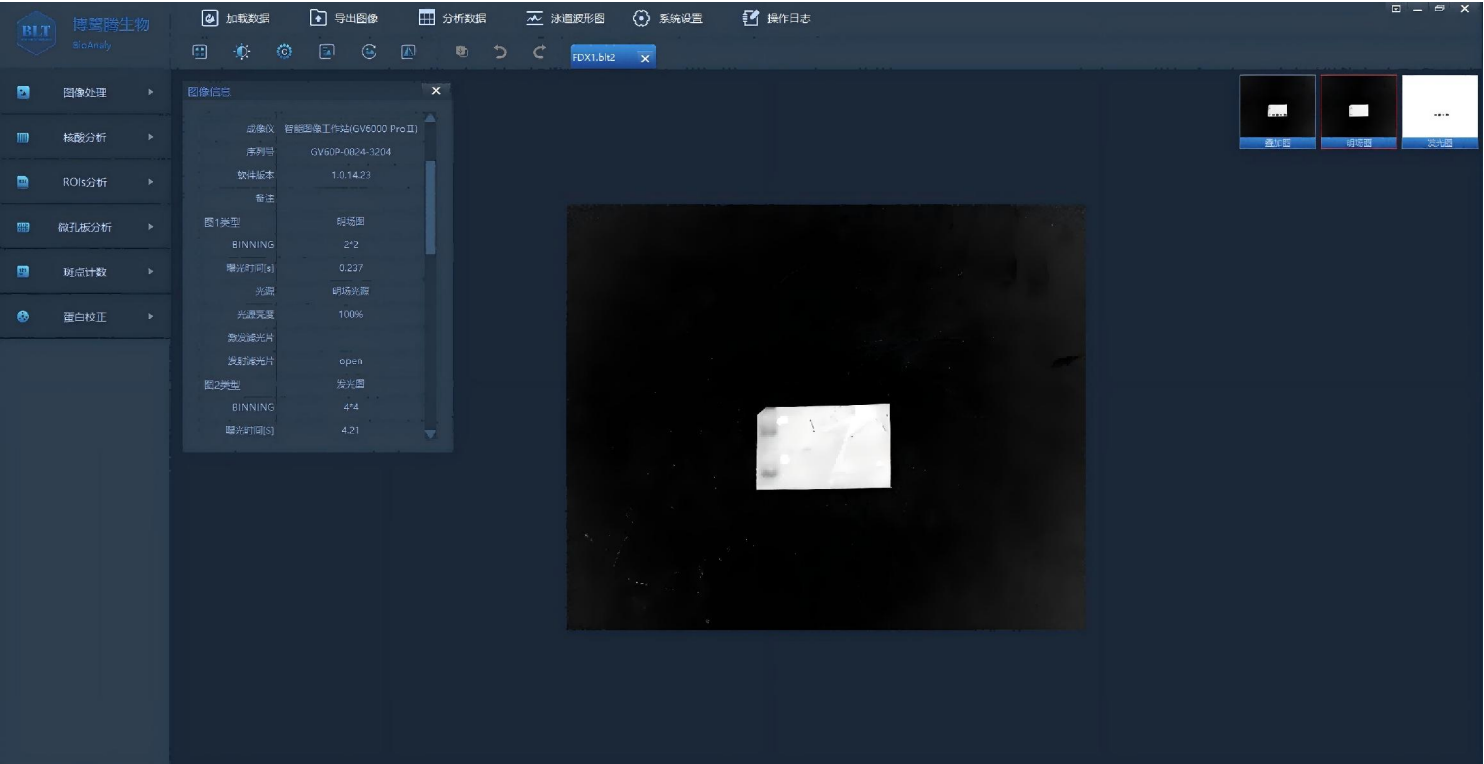
FDX1, brightfield+luminescence:



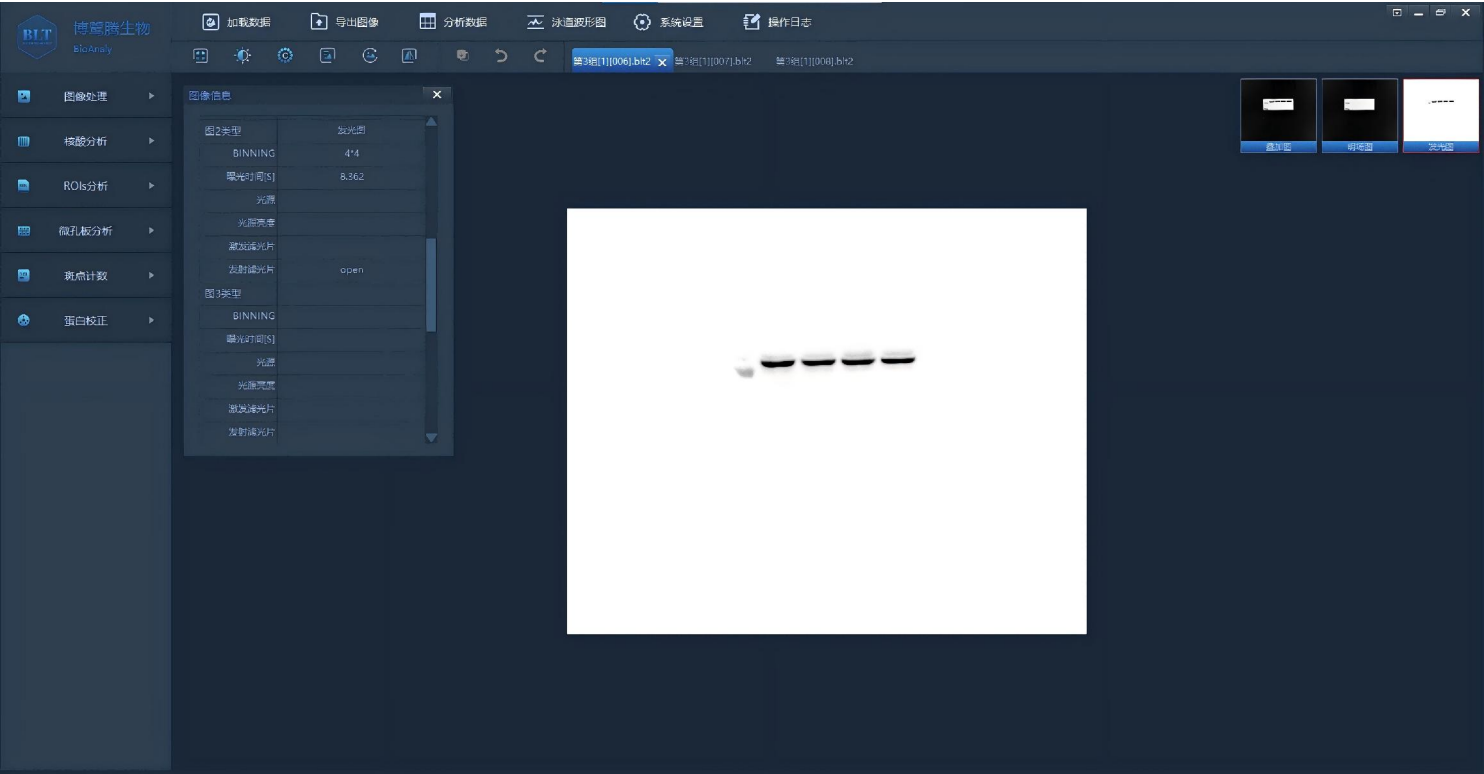
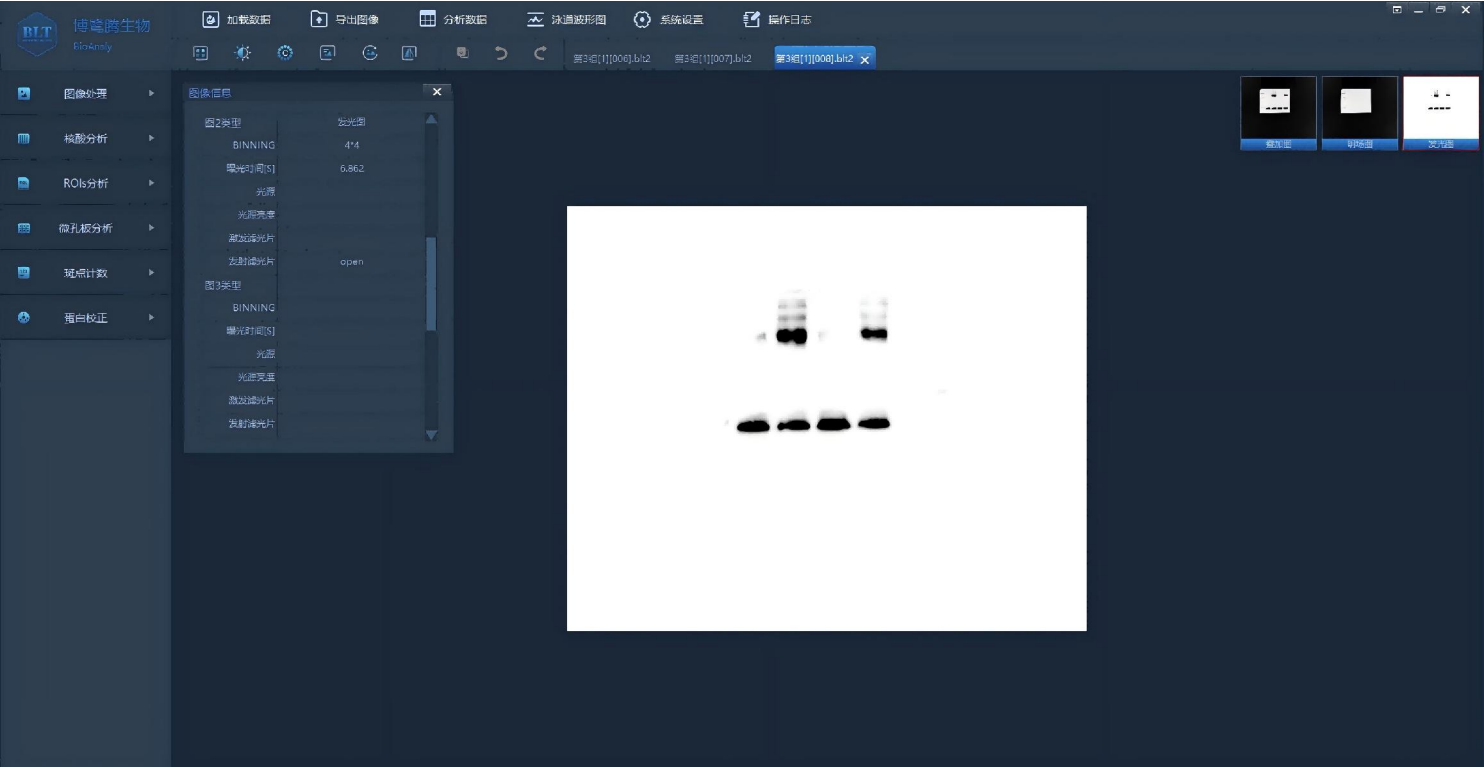


FDX1, bright-field:

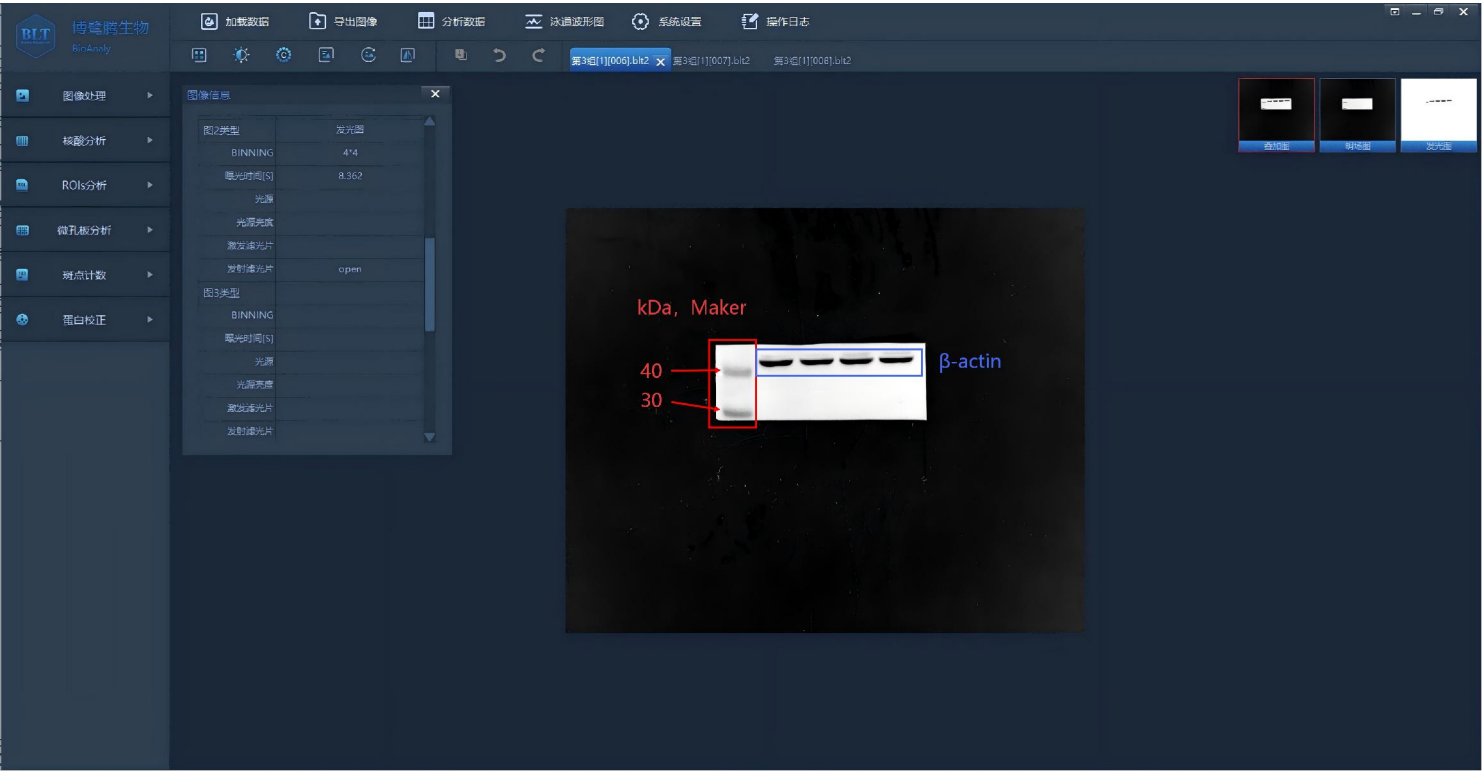
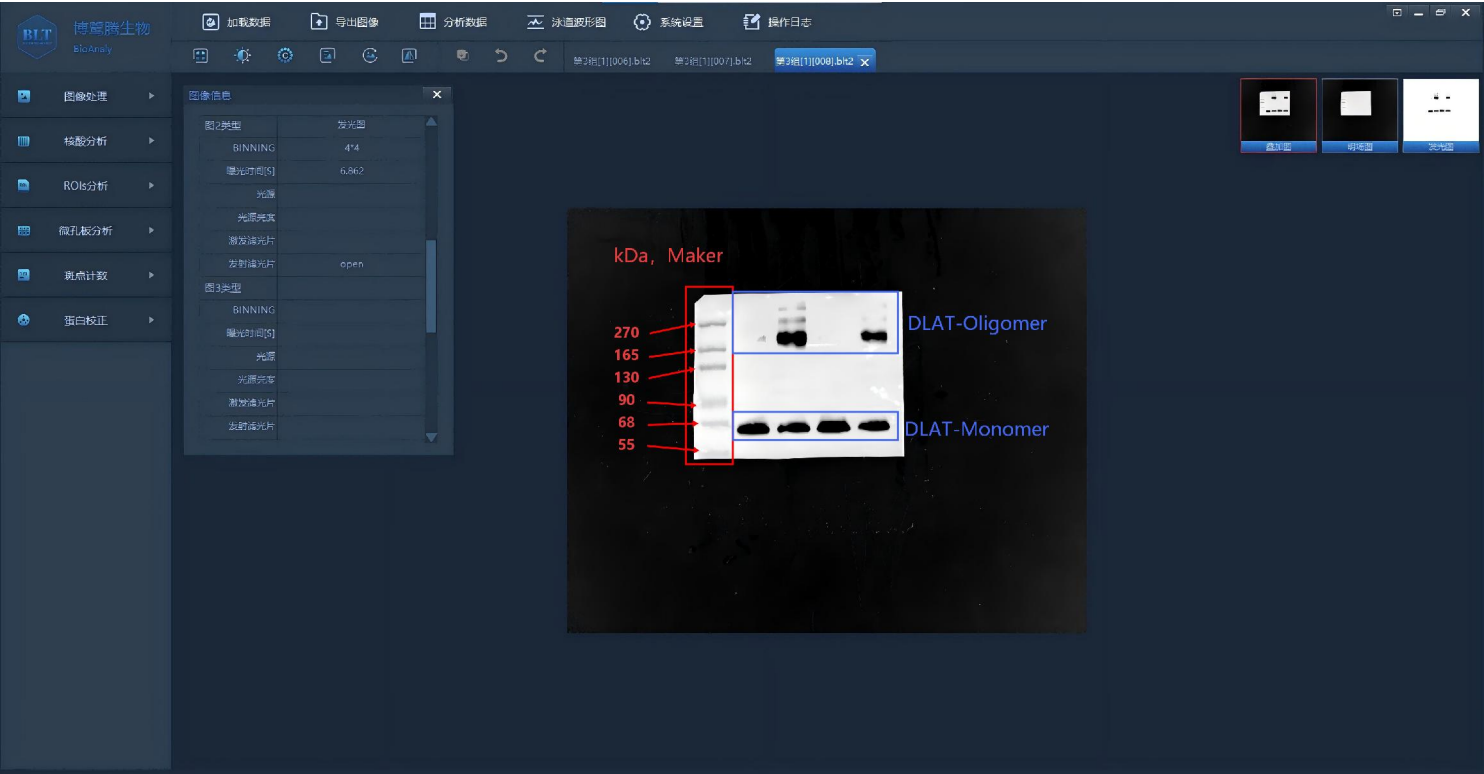




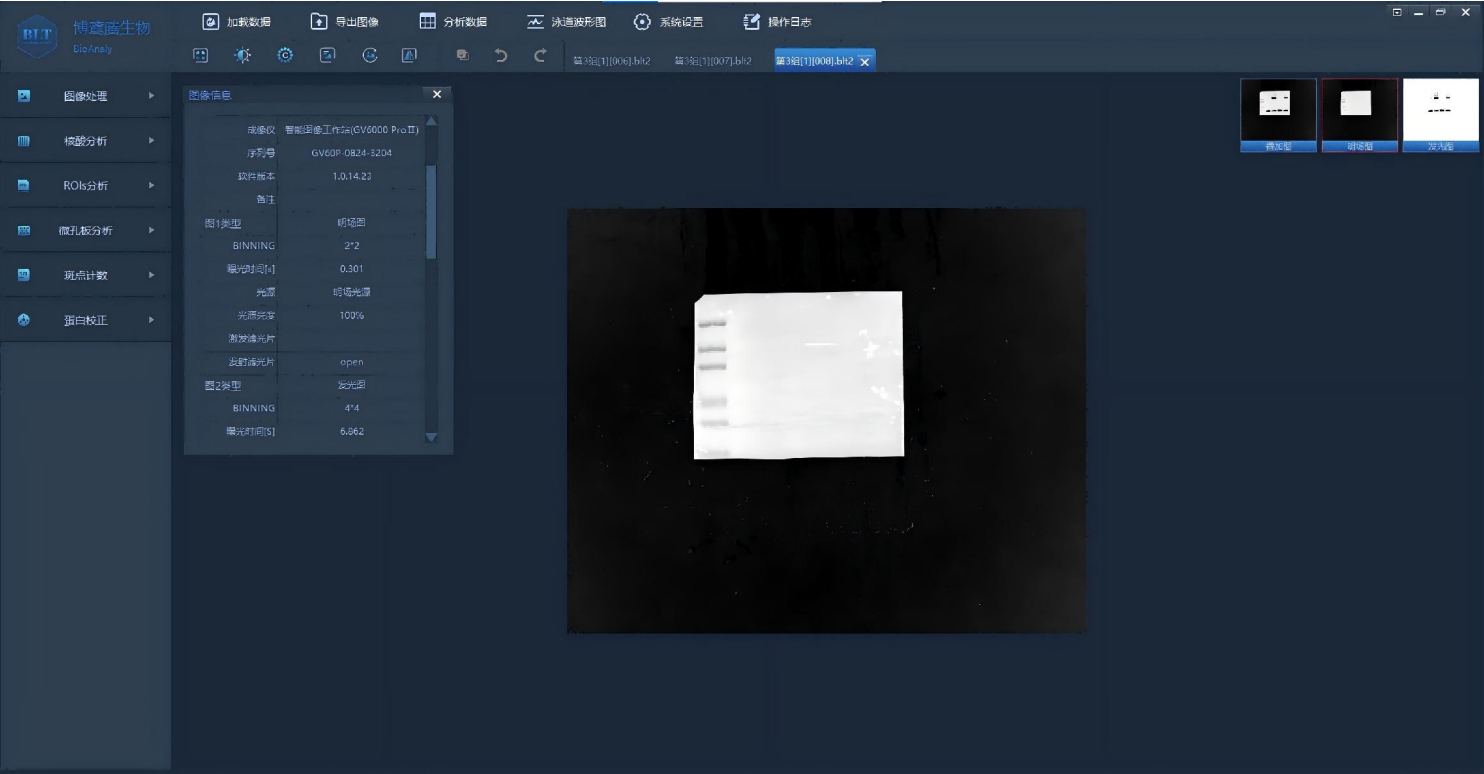
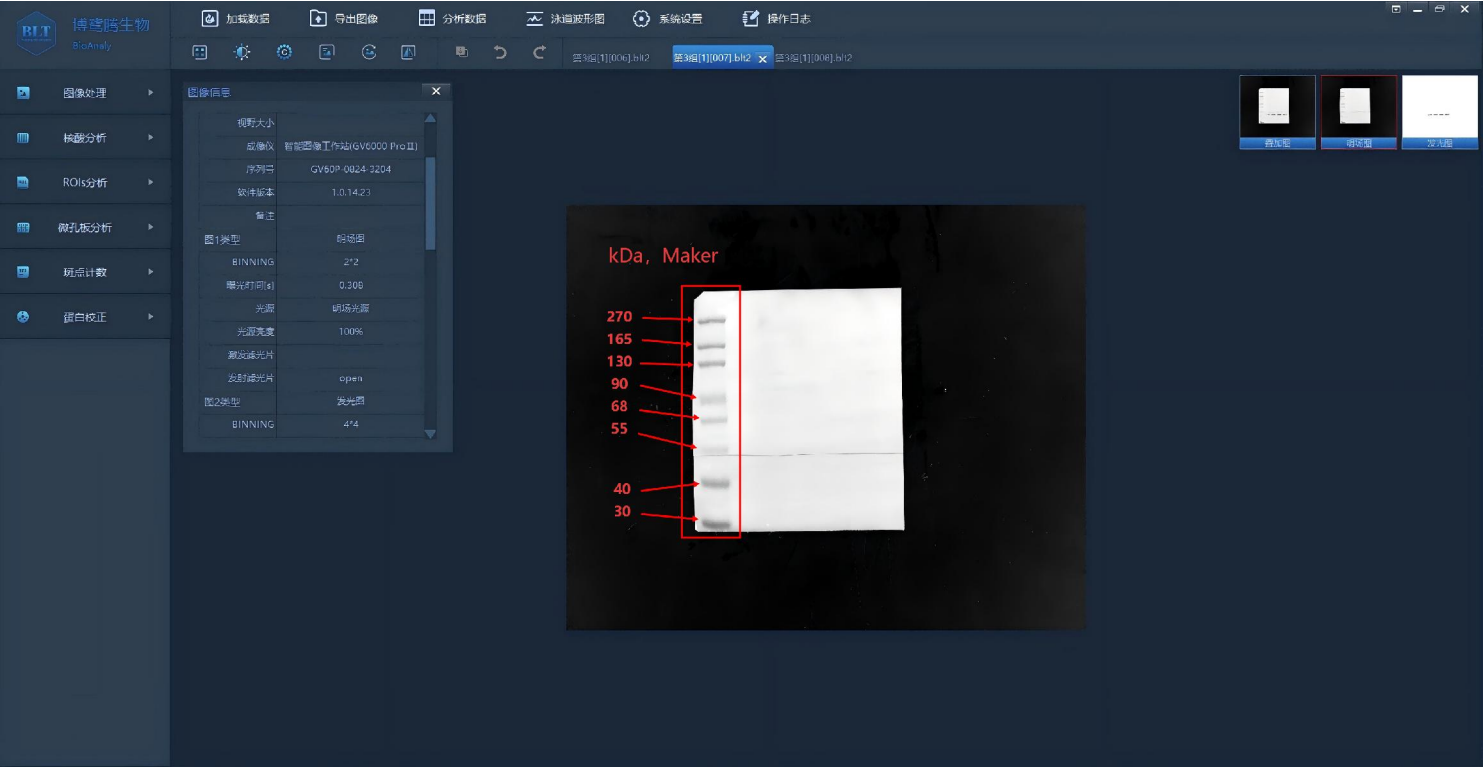
DLAT, luminescence:

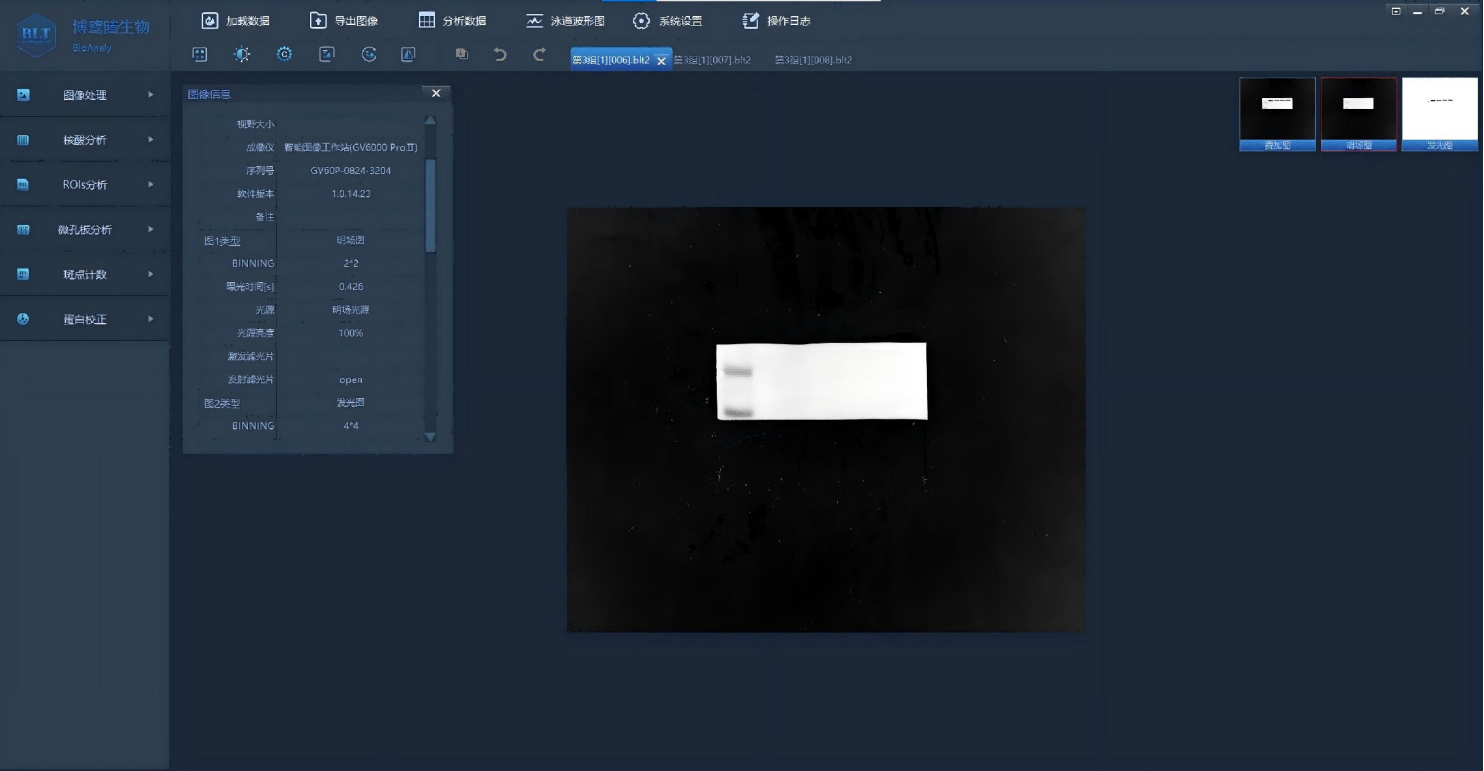


DLAT，brightfield+luminescence:

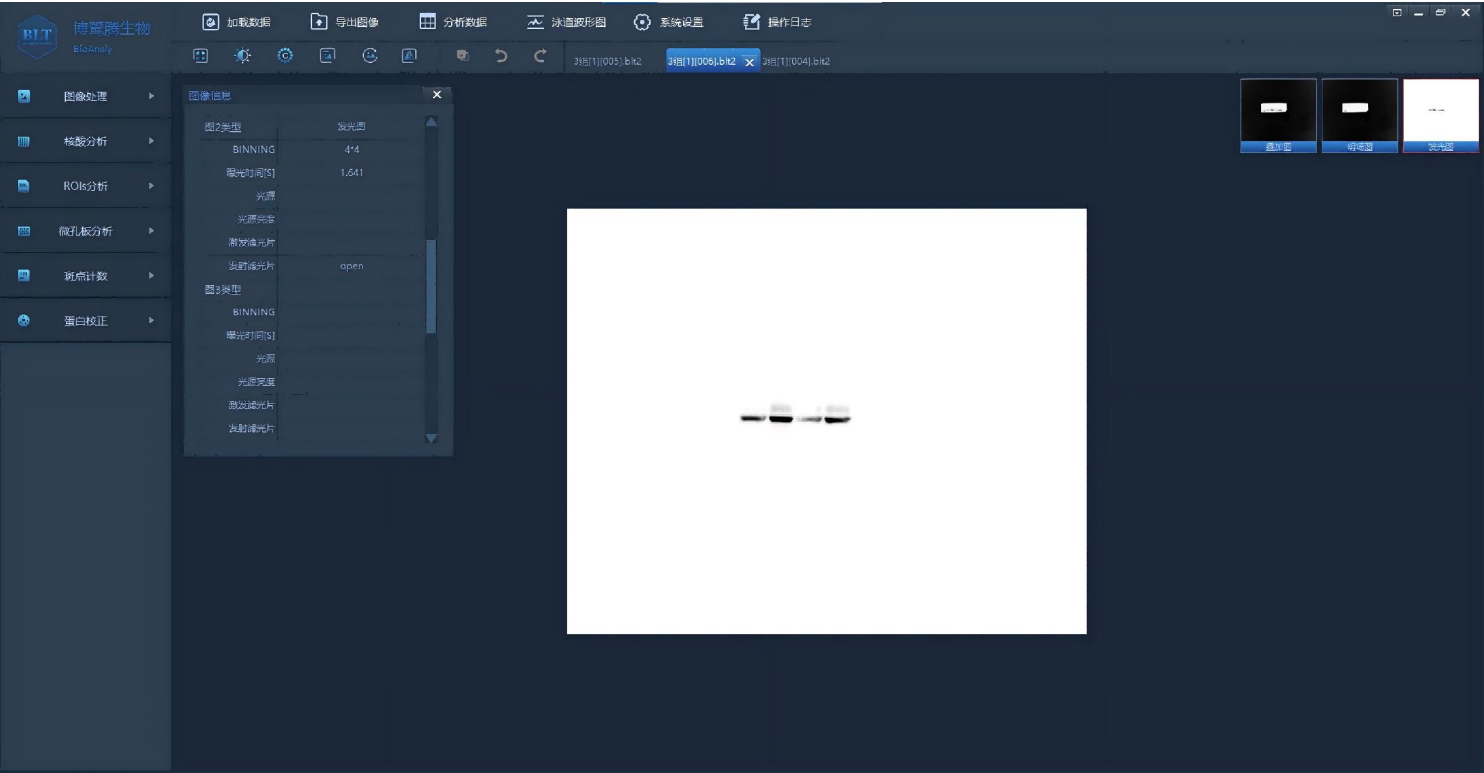


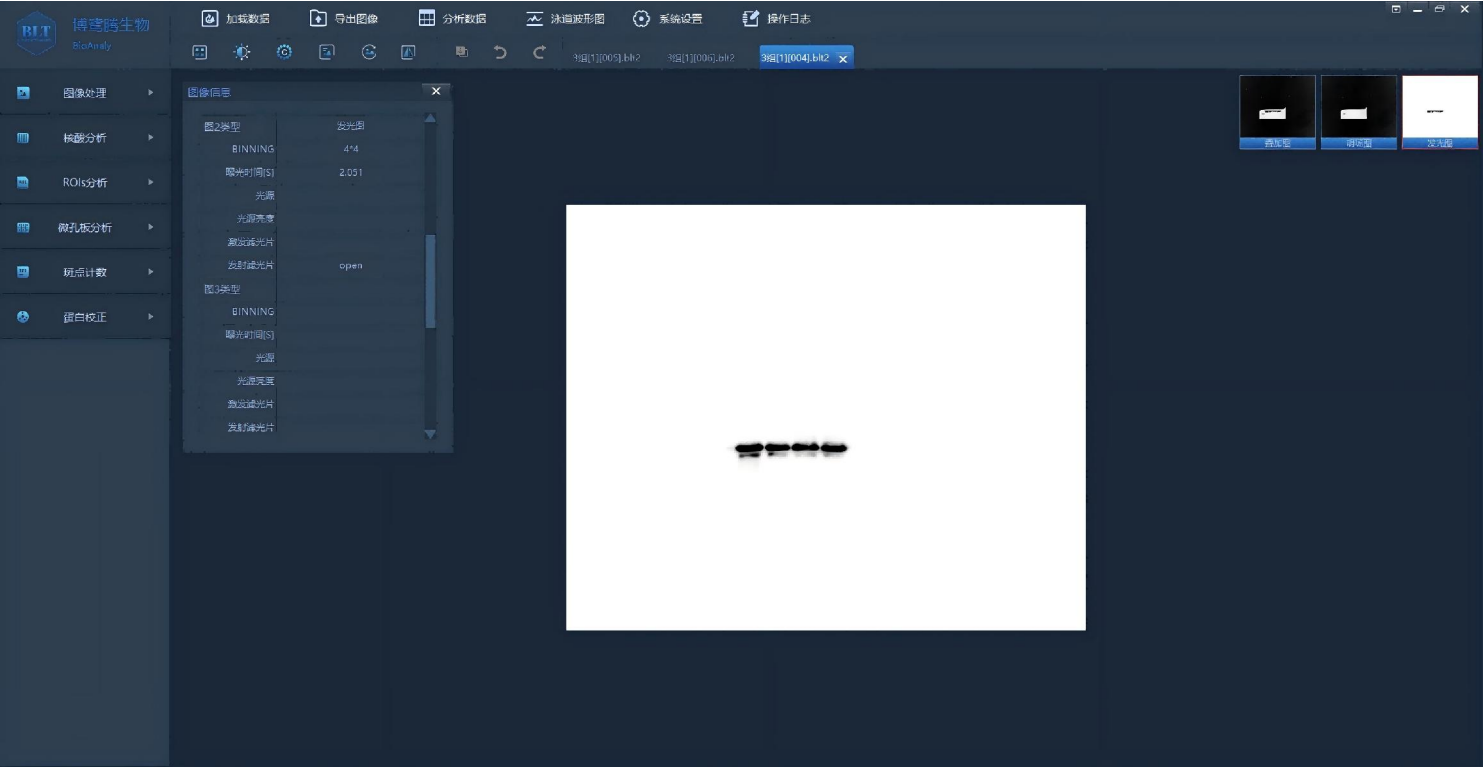
DLAT, bright-field:



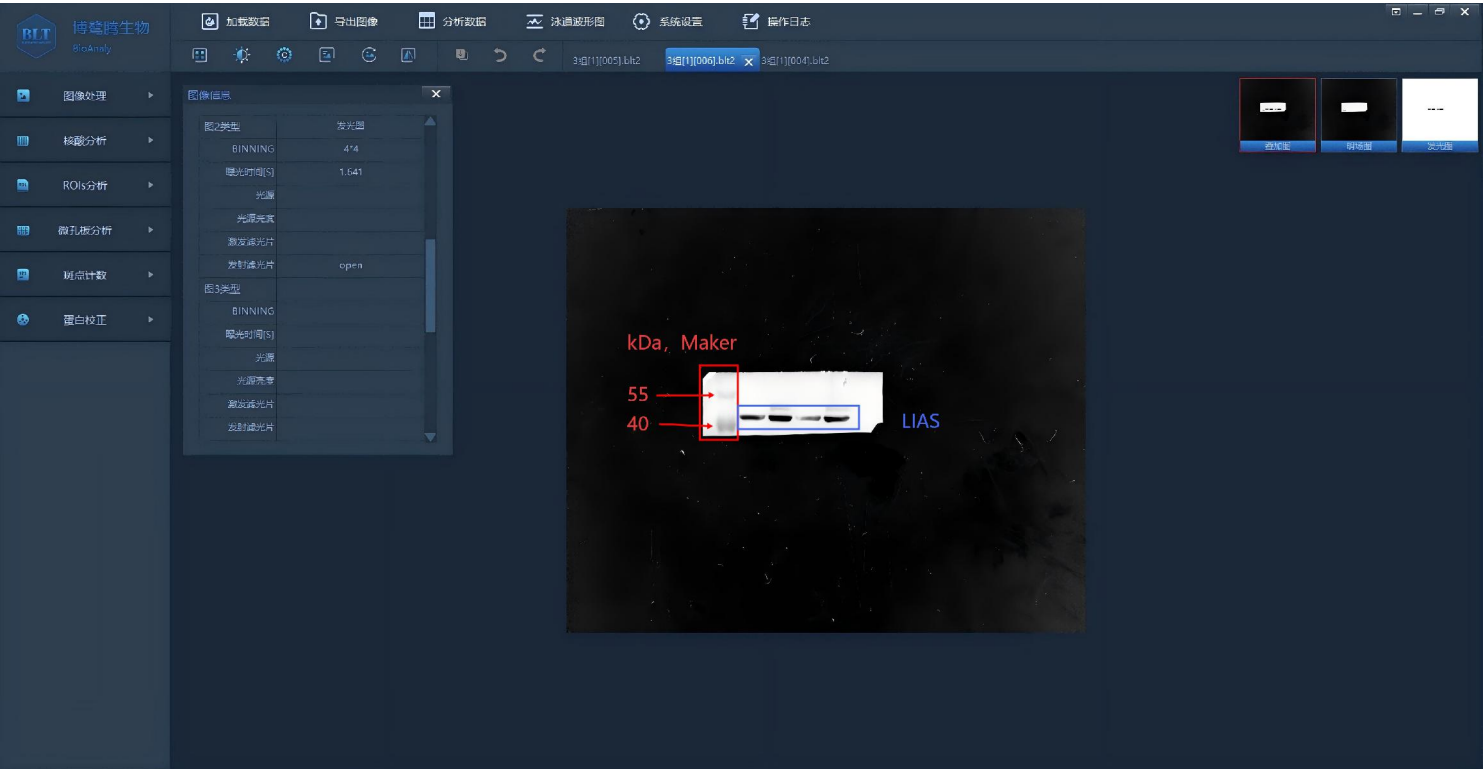


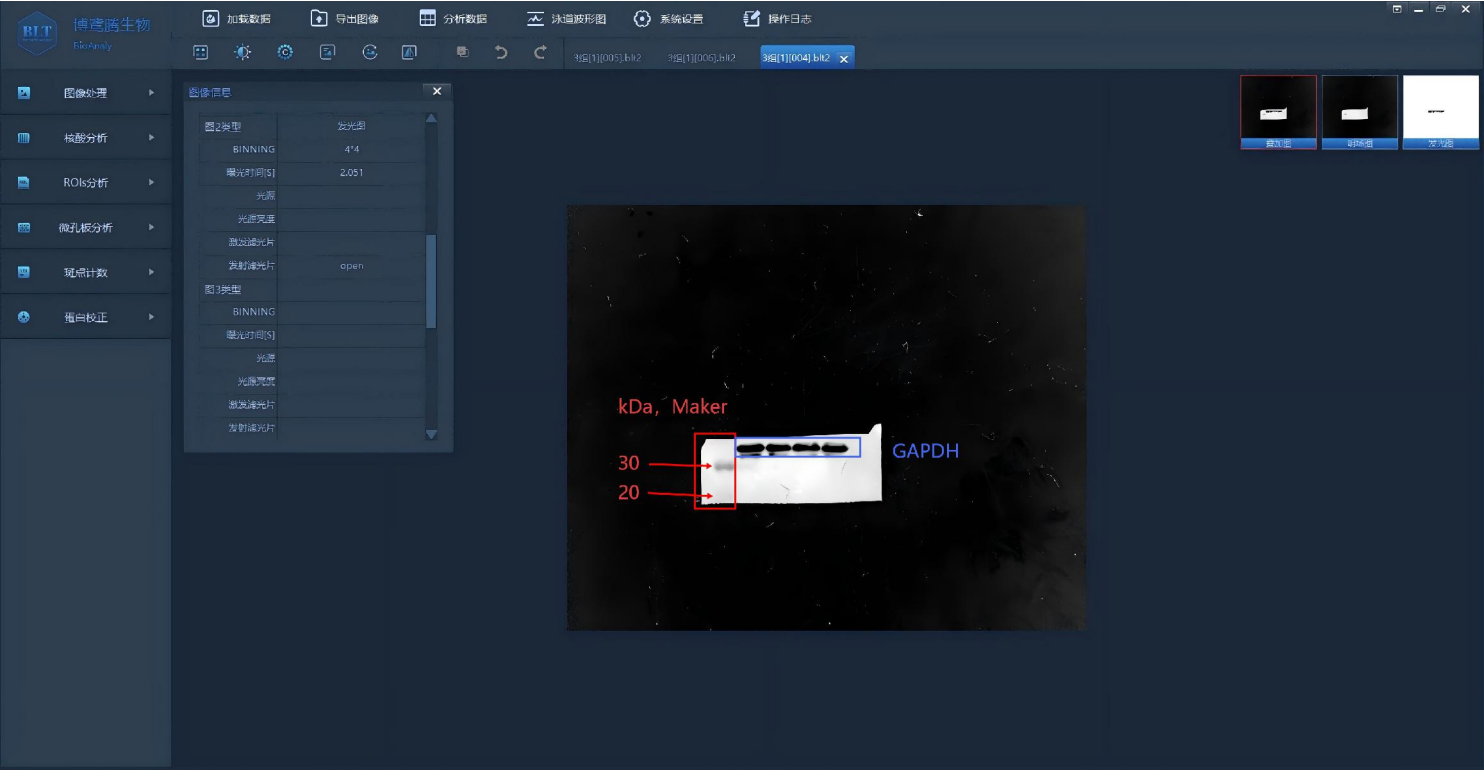
LIAS, luminescence:



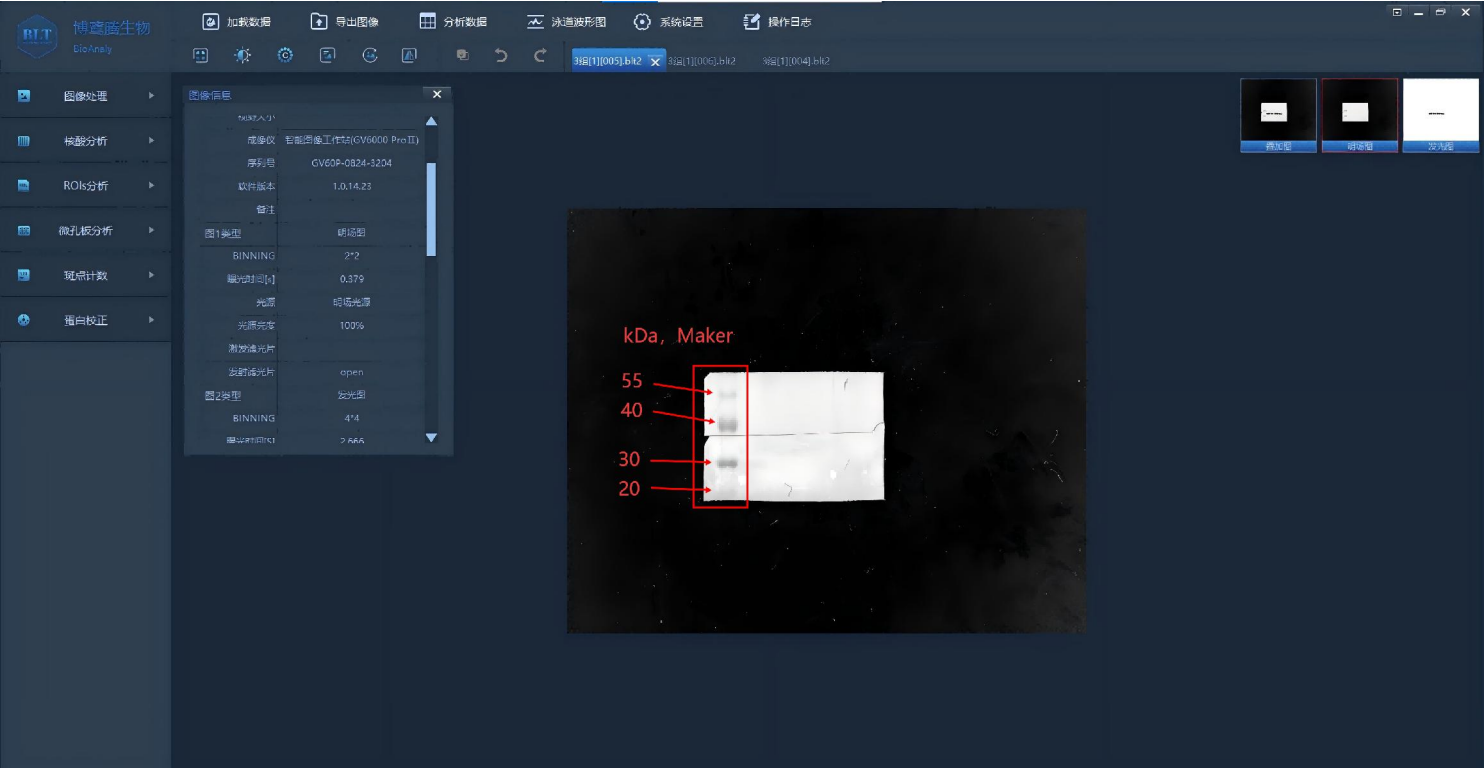


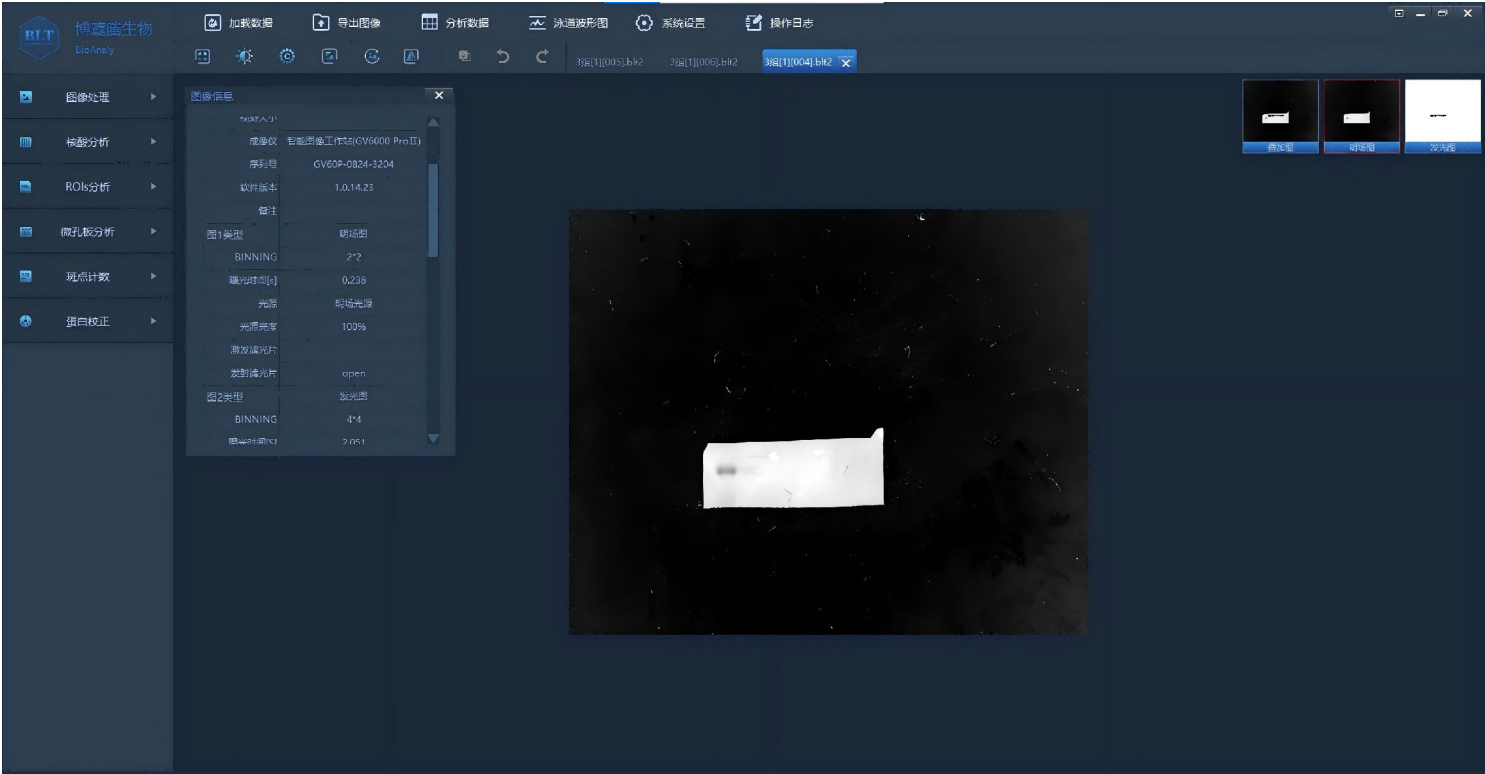
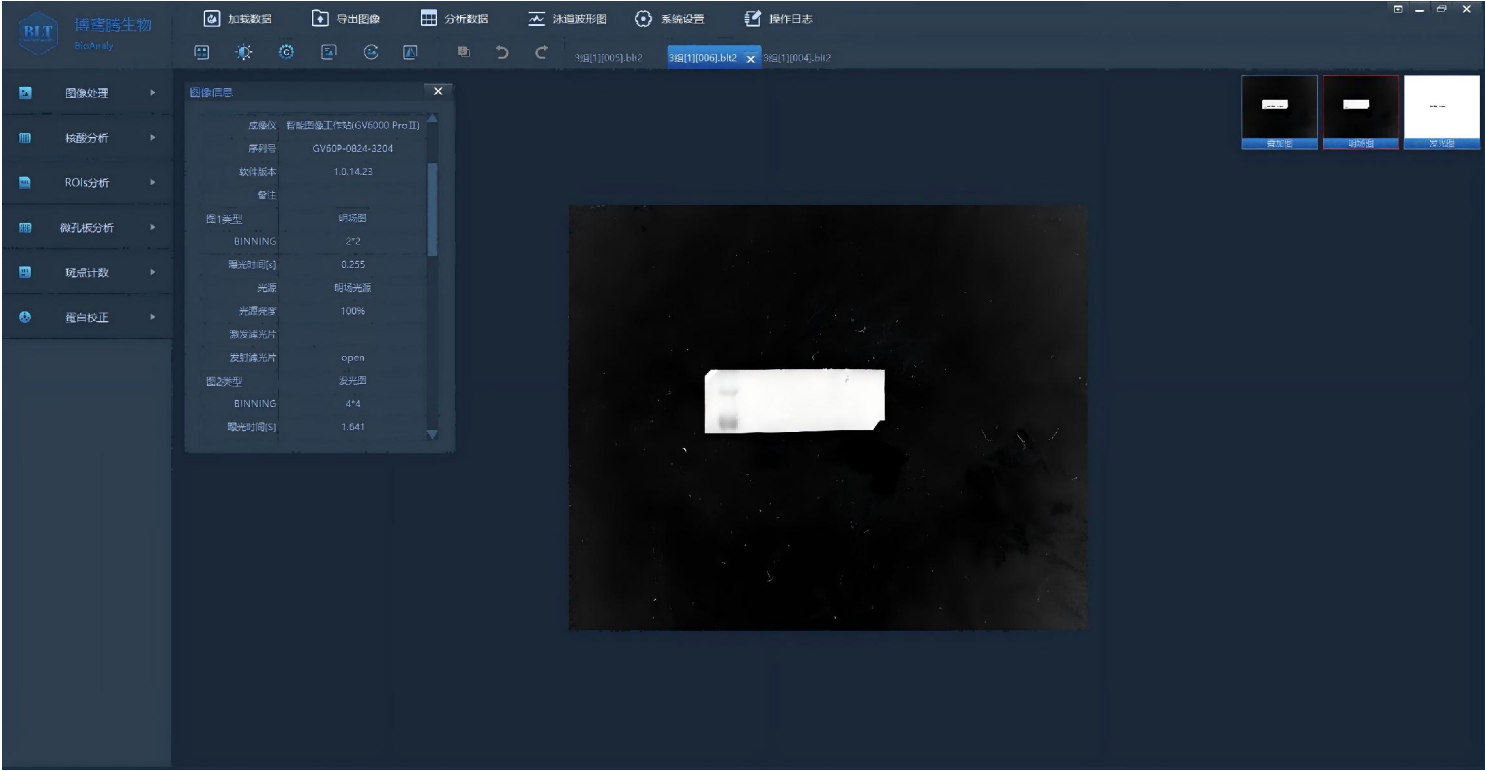
LIAS, brightfield+luminescence:





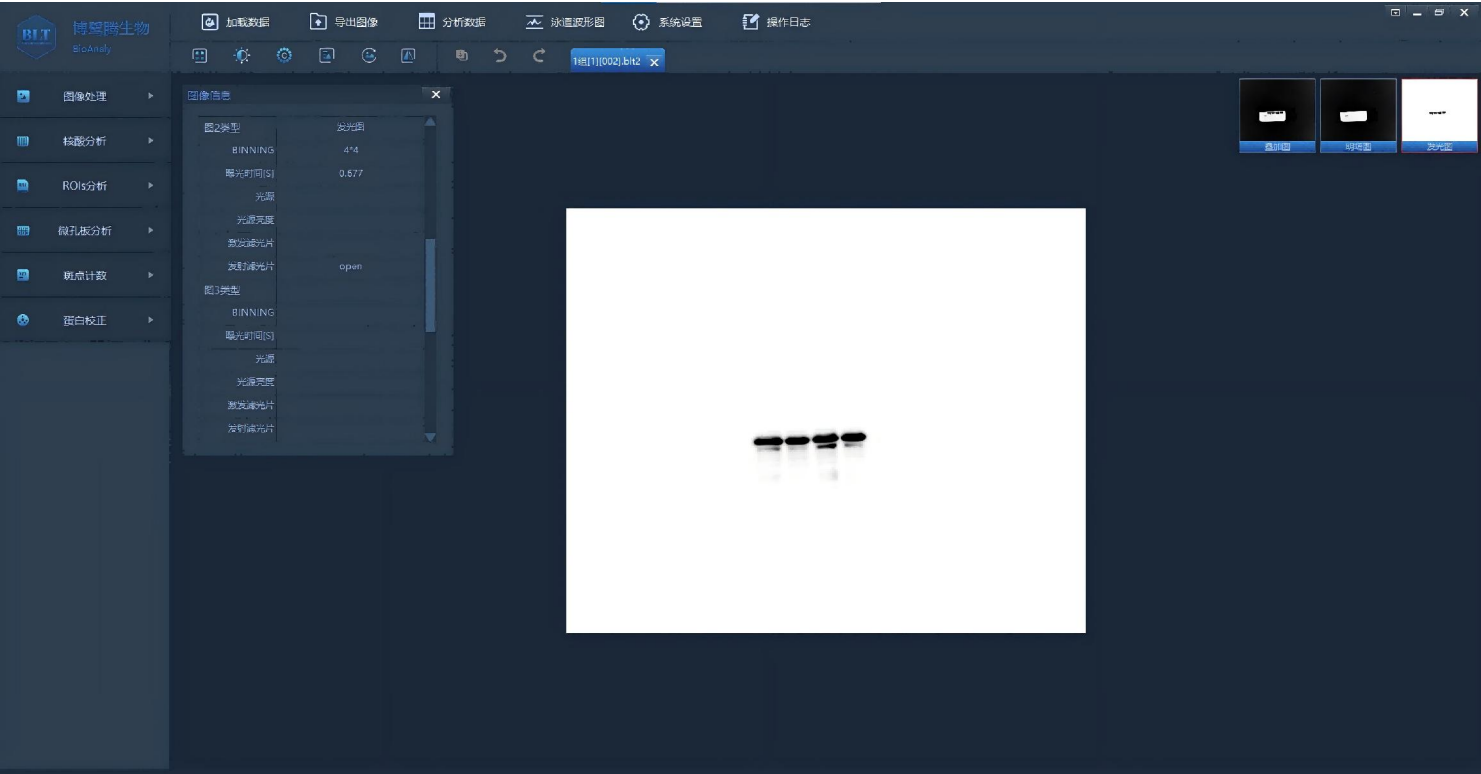
LIAS, bright-field:



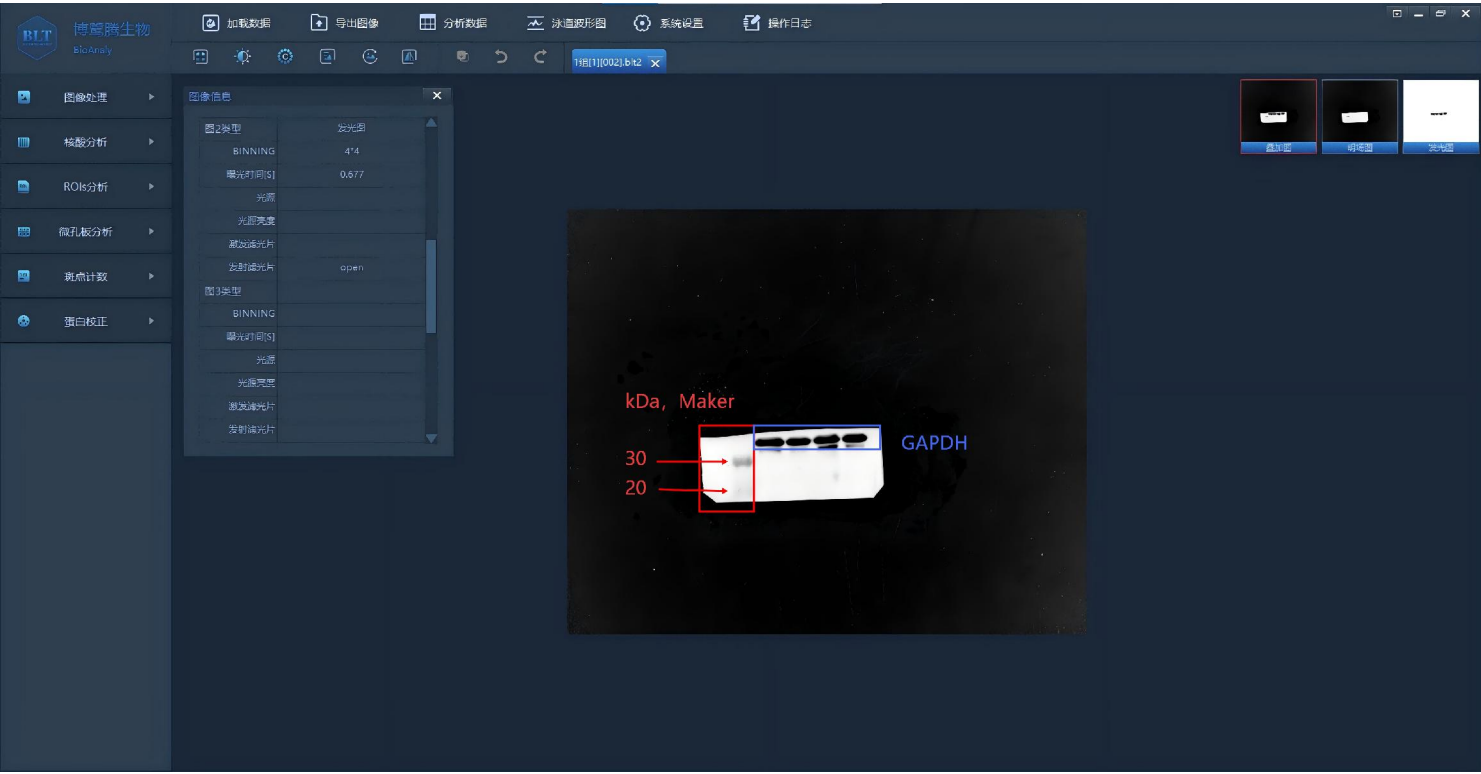


loading control: **GAPDH**

luminescence:



brightfield+luminescence:



bright-field:

BIT 博蓋德生物
BioInlay

加载数据

导出图像

分析数据

泳道波图形

系统设置

操作日志

图像处理

核酸分析

ROIs分析

微孔板分析

斑点计数

蛋白校正

图像信息

设备名称

设备型号

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软件版本

备注

图1类型

BINNING

曝光时间[s]

光源

光源功率

激发滤光片

发射滤光片

图2类型

BINNING

曝光时间[s]

180119021612

图1图

图2图

图3图

kDa, Maker

30

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kDa, Maker

30

20