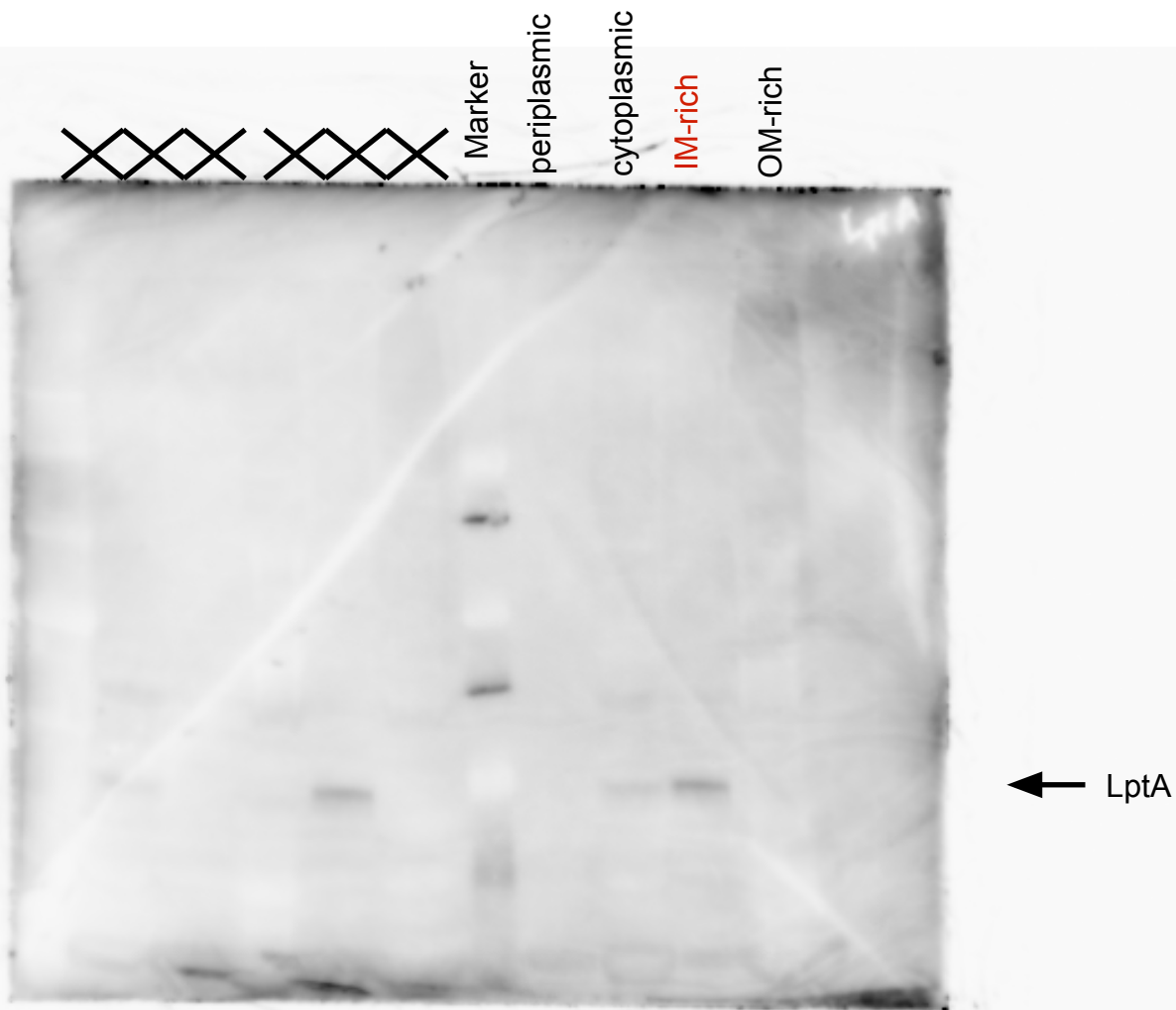


@ Detected by anti -PamA rabbit serum & anti-rabbit-HRP conjugate-2nd antibody

@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

@ Use by cut out left-half of the gel to show the fractionation of PamA protein in *N. meningitidis*

Fig 2A_raw_image

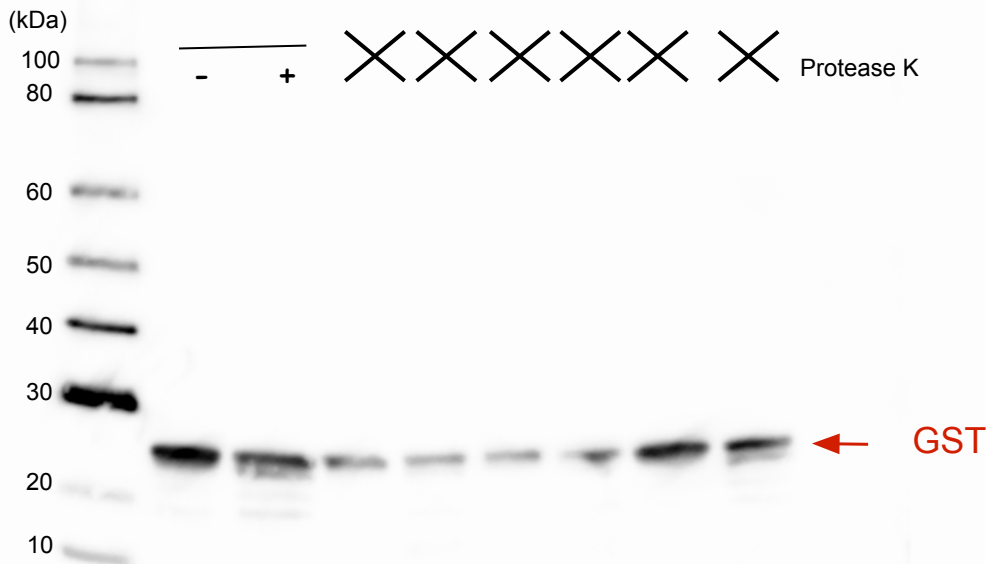


@ Detected by anti-LptA rabbit serum & anti-rabbit-HRP conjugate-2nd antibody

@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

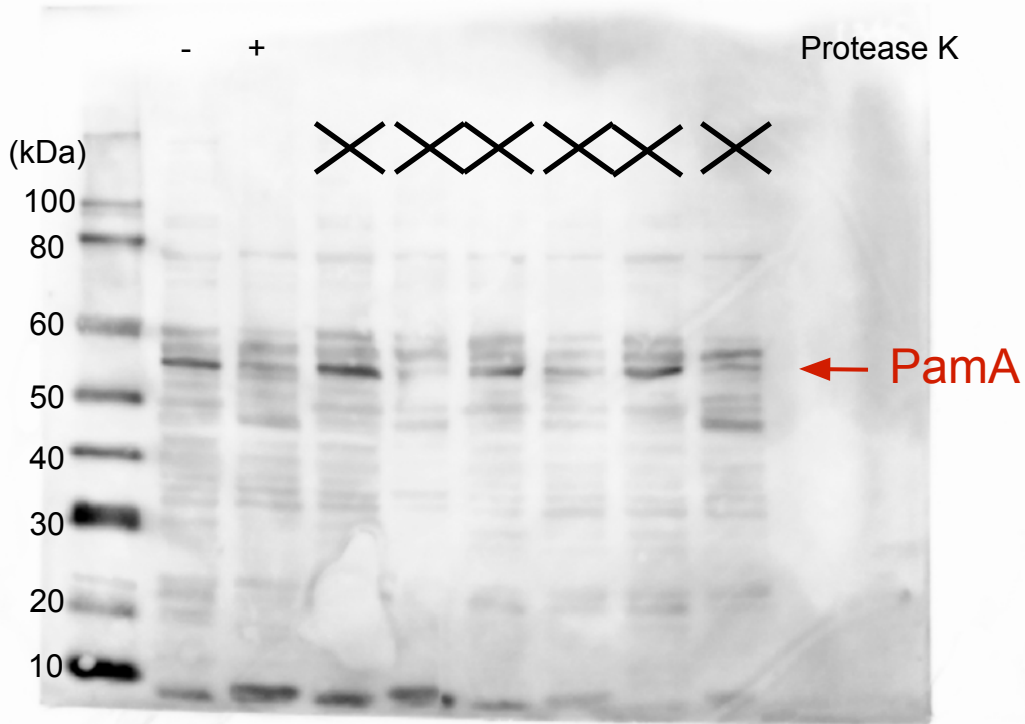
@ Use by cut out right-half of the gel to show the fractionation of LptA protein
(inner membrane protein) in *N. meningitidis*

Fig 2A-2_raw_image



- @ Detected meningococcal spheroplasted meningococci digested by Protease K followed by SDS-PAGE & Western blotting
- @ Detected by anti-GST mAb & anti-mouse-HRP conjugate-2nd antibody
- @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Use by cutting out the left part of bands to show the digestion of GST protein in *N. meningitidis*

Fig 2D_raw_image



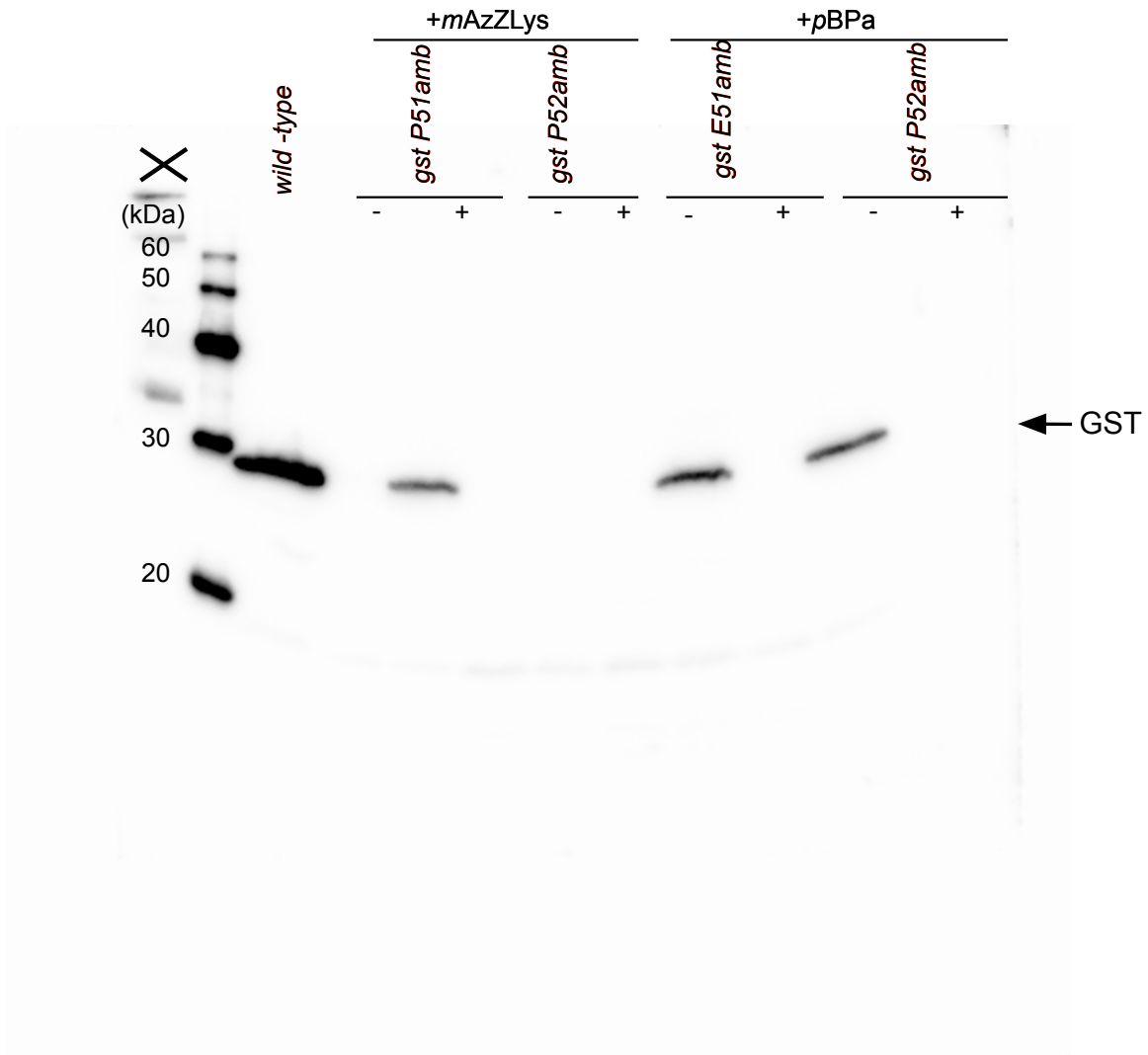
@ Detected spheroplasted meningococci digested by Protease K followed by SDS-PAGE & Western blotting

@ Detected by anti-PamA rabbit serum & anti-rabbit-HRP conjugate-2nd antibody

@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

@ Use by cutting out the left part of the image to show the digestion of PamA protein

Fig 2E_raw_image



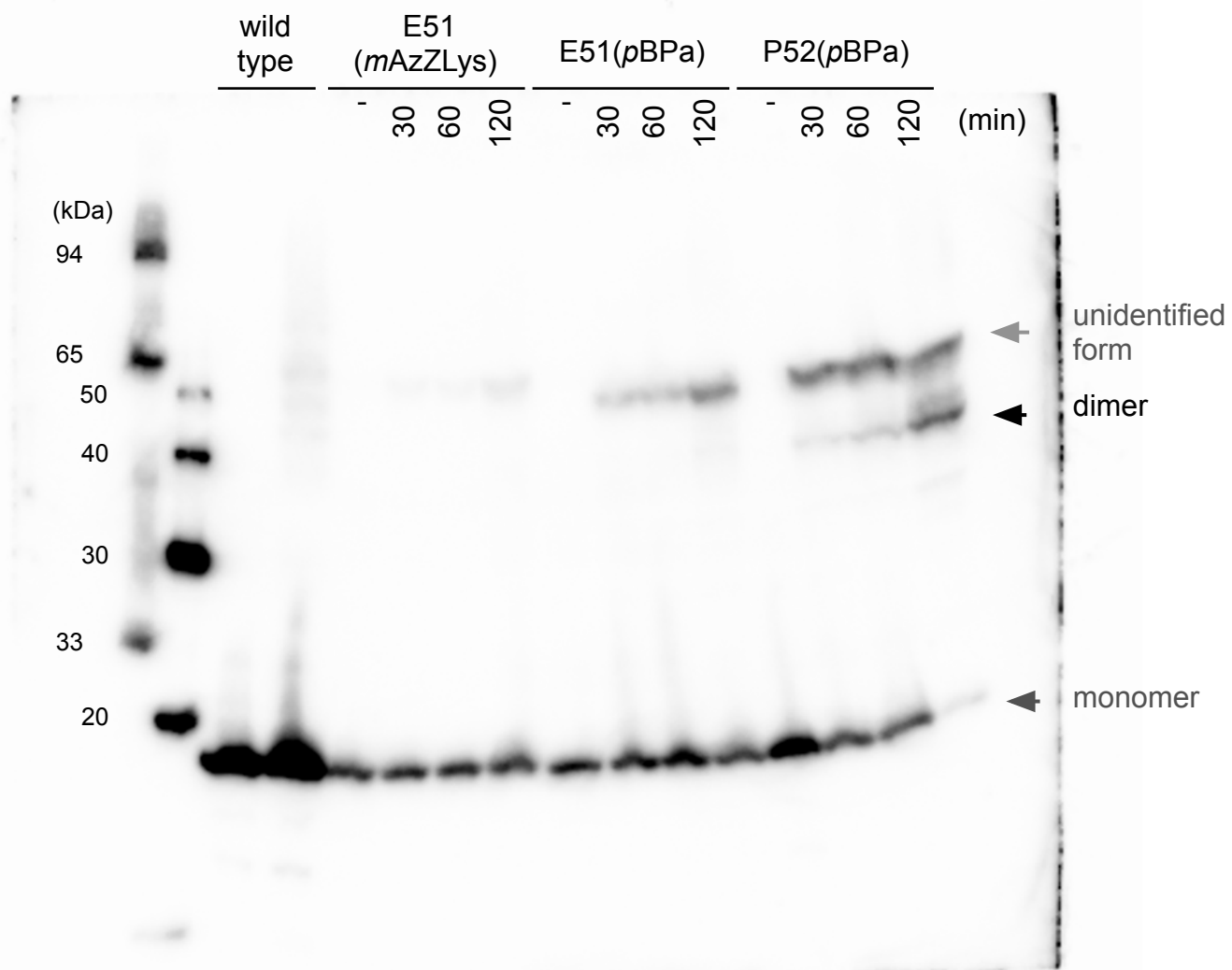
@ Efficiency of incorporation of ncAAs into *gst P51amb* or *P52amb* against wt GST by SDS-PAGE & Western blotting

@ Detected by anti-GST mAb & anti-mouse-HRP conjugate-2nd antibody

@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

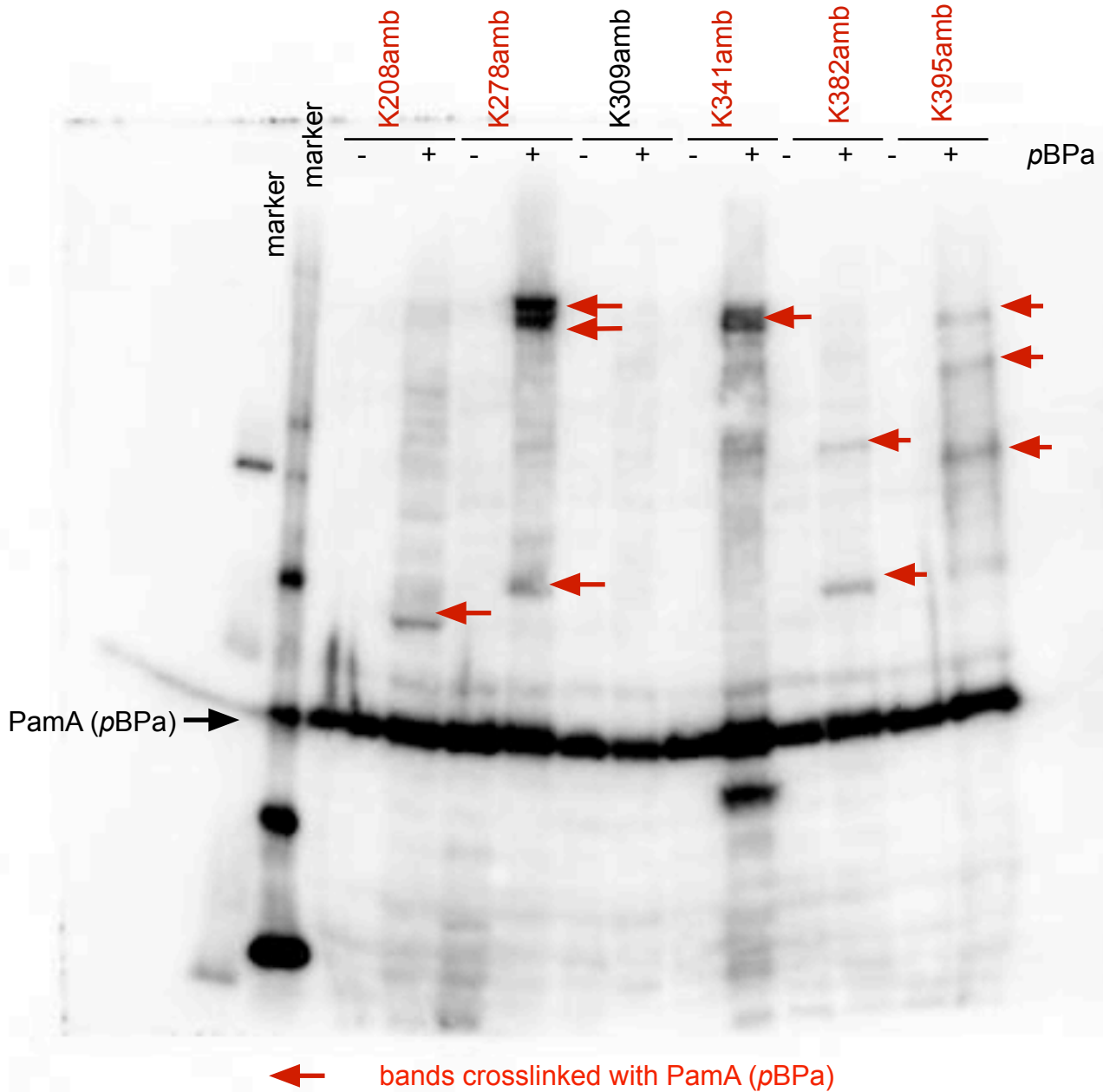
@ Used by cutting out to remove margin of the image

Fig 3B_raw_image



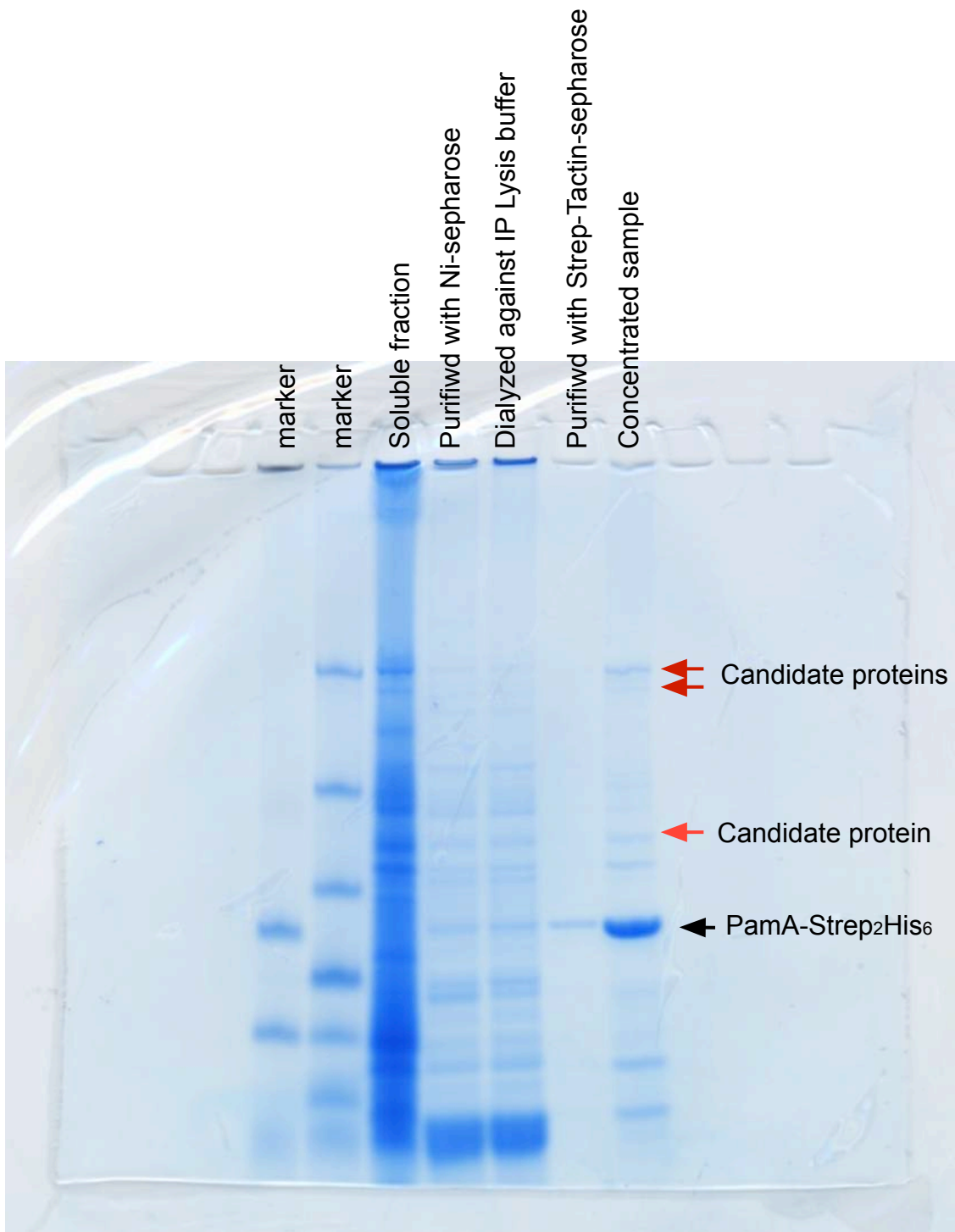
@ Efficiency of crosslinking with ncAAs in GST E51amb and P52amb monitored by Western blotting
 @ Detected by anti-GST mAb & anti-mouse-HRP conjugate-2nd antibody
 @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
 @ Used by cutting out margin of the image

Fig 3C_raw_image



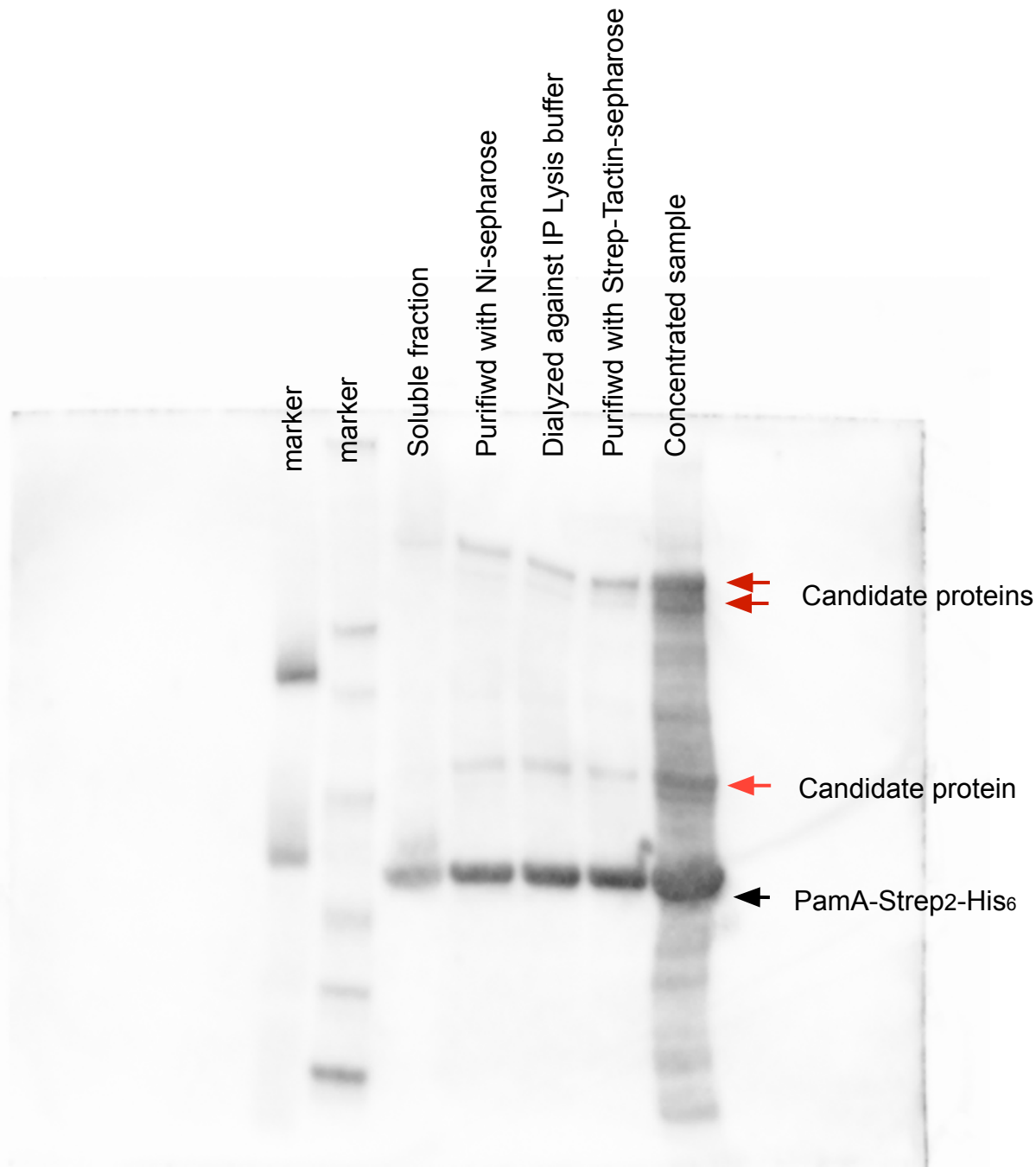
@ re-examination of samples used in S3 Fig by SDS-PAGE & Western blotting
 @ Detected by anti -(His)₆ mAb & anti-mouse-HRP conjugate-2nd antibody
 @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
 @ Used this panel without any modification

Fig 4_raw_image



@ Samples purified with His resin & StrepTactin resin and analyzed by SDS-PAGE
@ Visualized by CBB staining
@ captured by a general scanner
@ Used by cutting out the center of the image

Fig 5A_raw_image



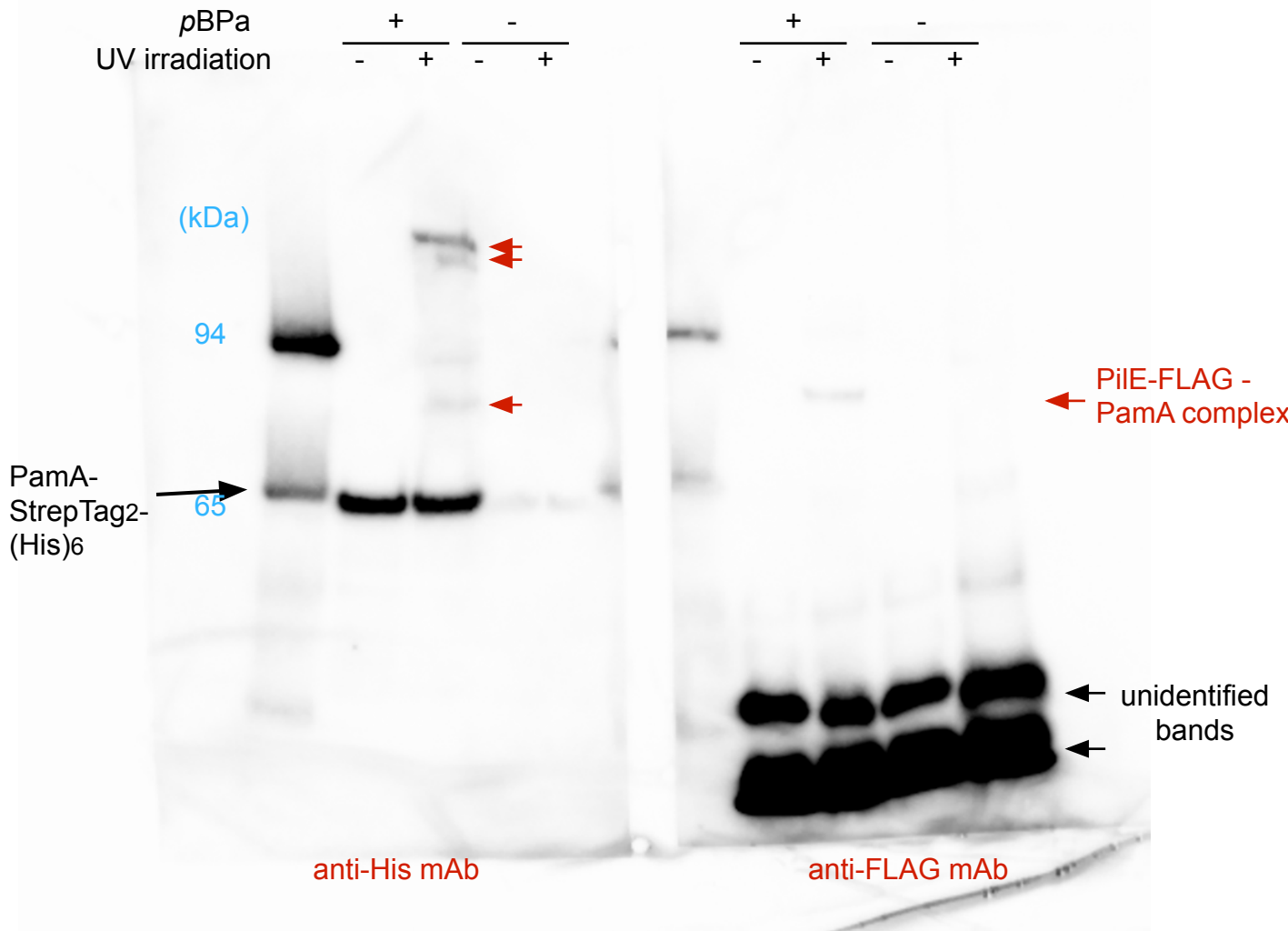
@ Purified samples with His resin & StrepTaction by SDS-PAGE & Western blotting

@ Detected by anti-(His)6 mAb & anti-mouse-HRP conjugate-2nd antibody

@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

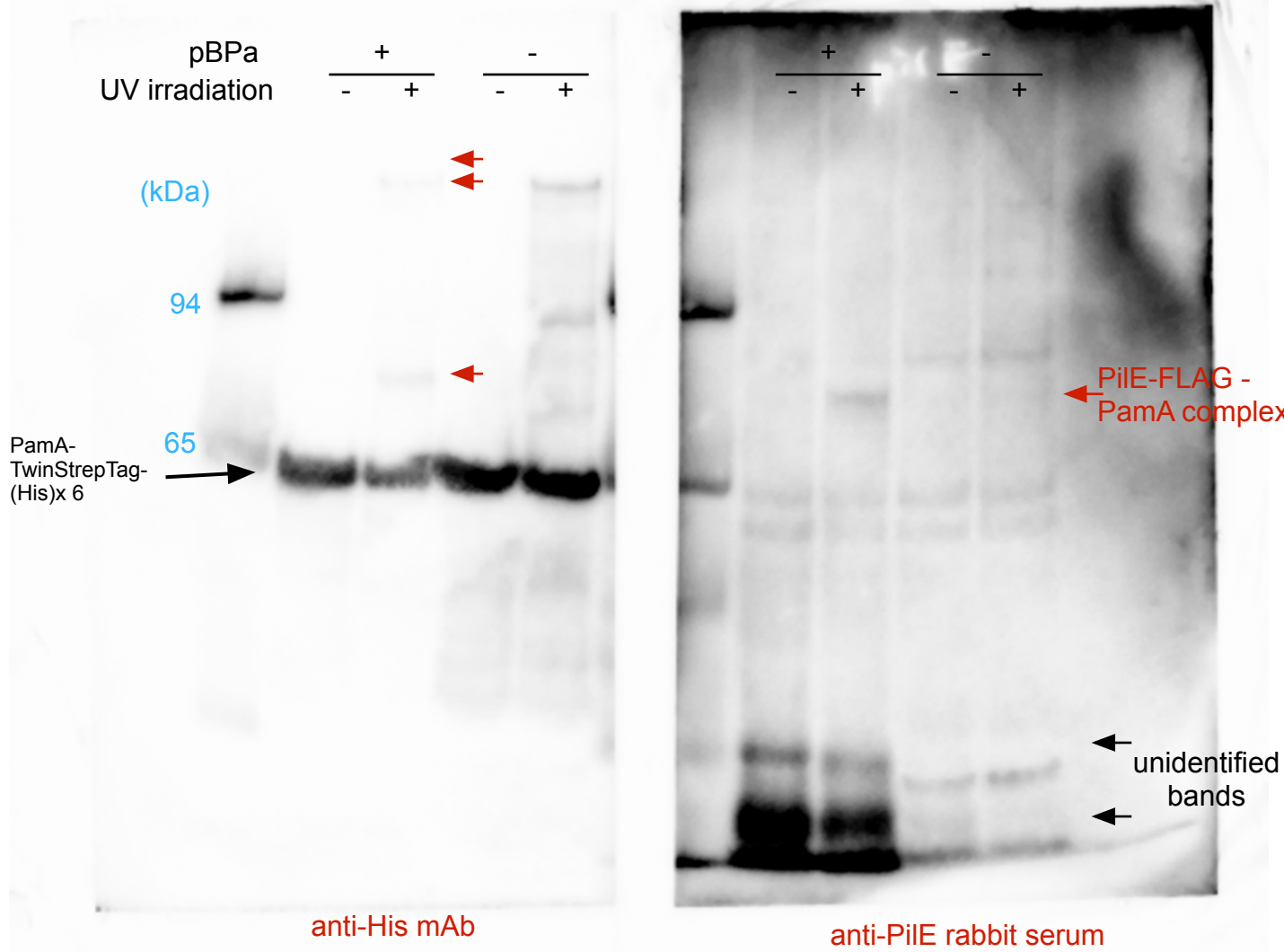
@ Used by cutting out the center of the image

Fig 5B_raw_image



- @ Purified crosslinked samples with His resin by SDS-PAGE & Western blotting
- @ Detected by anti-(His)₆ & FLAG mAbs & anti-mouse-HRP conjugate-2nd antibody
- @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Used by cutting out the upper part of the image

Fig 5C_raw_image



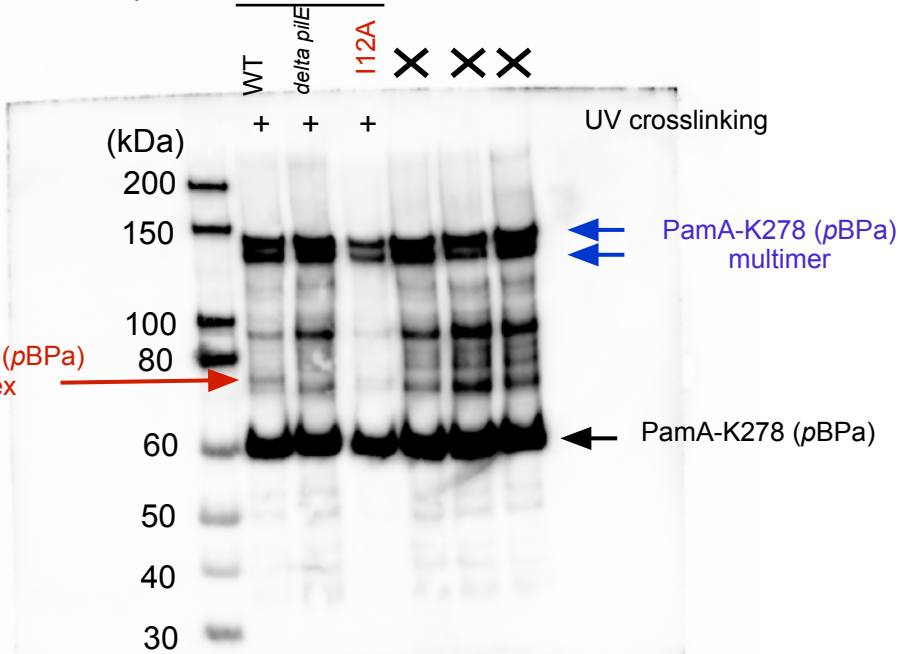
@ Purified crosslinked samples with His resin by SDSP-AGE & Western blotting
 @ Detected by anti -(His)6 mAb & anti PiIE rabbit serum & anti-mouse/rabbit-HRP conjugate-2nd antibody
 @ Captured by Chemiluminace imaging system: FUSION SOLO 5 (M&S)
 @ Used by cutting out the center of the image

Fig 5D_raw_image

pilE-ermC translational fusion

Anti-(His)₆
mAb

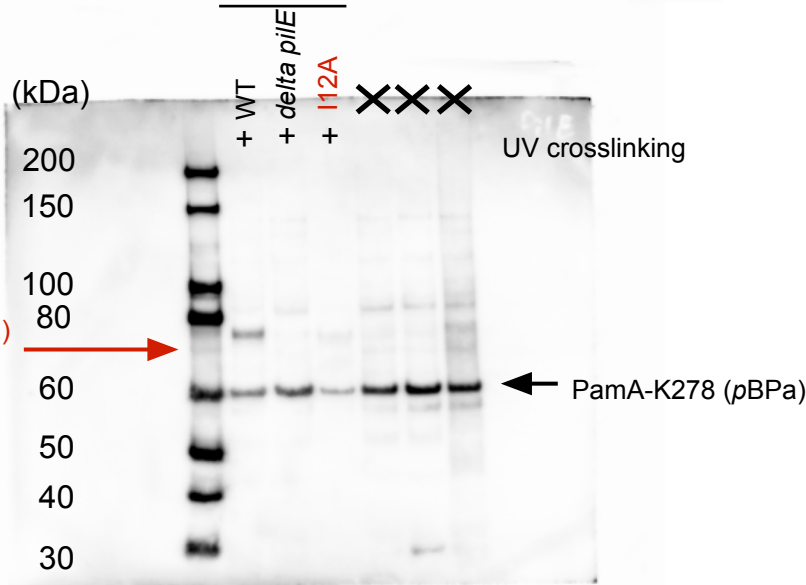
PamA K278 (pBP_a)
-PilE complex



pilE-ermC translational fusion

Anti-PilE
rabbit serum

PamA K278 (pBP_a)
-PilE complex

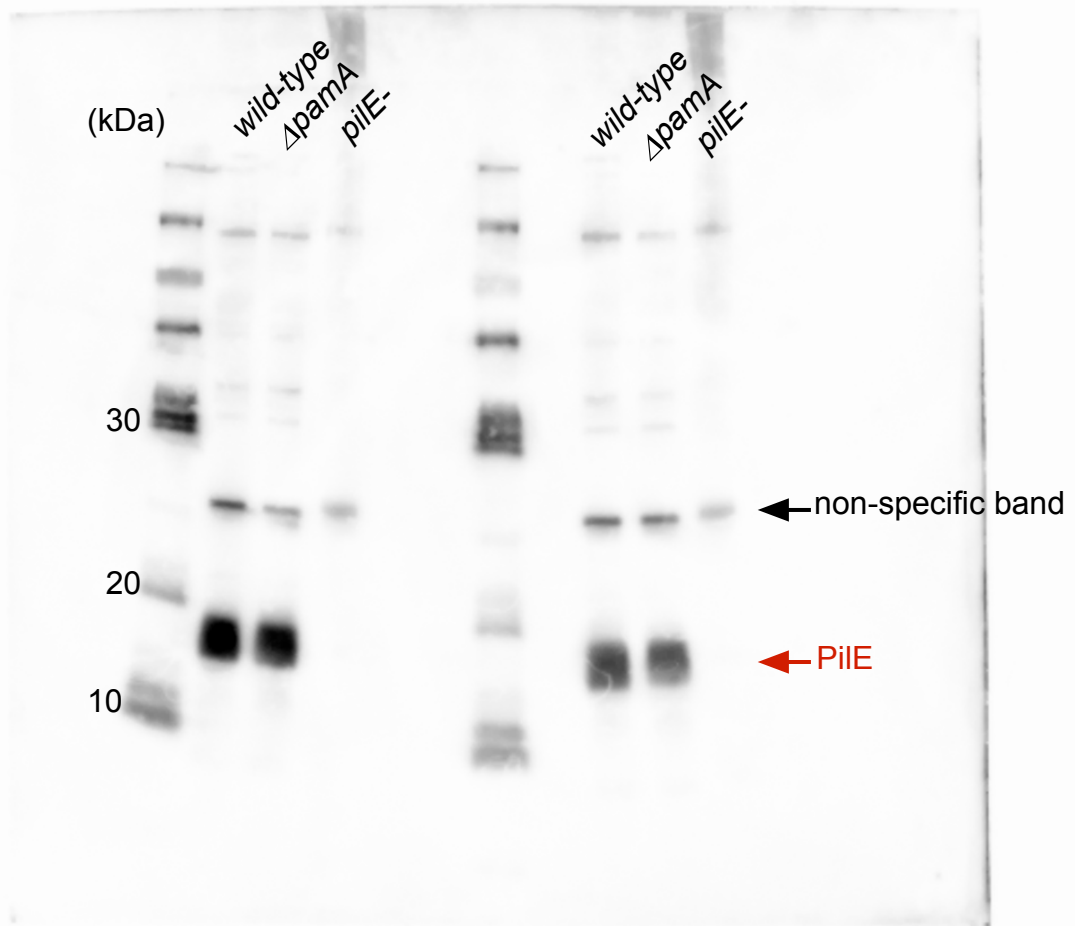


@ Purified crosslinked samples with His resin by SDS-PAGE & Western blotting

@ Detected by anti-(His)₆ mAb & anti-PilE rabbit serum & anti-mouse/rabbit-HRP conjugate-2nd antibody

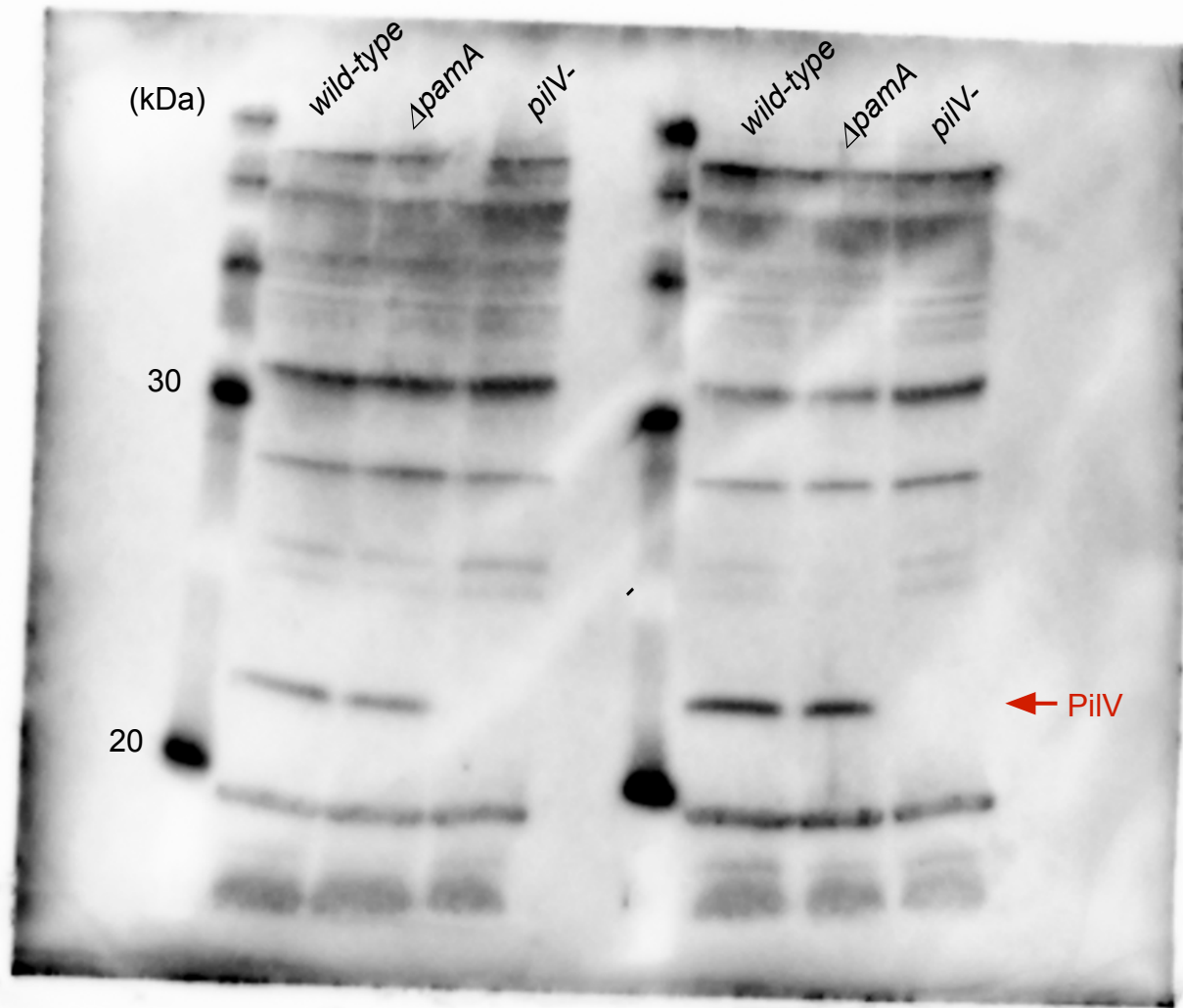
@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

@ Used by cutting out the left part of the gel



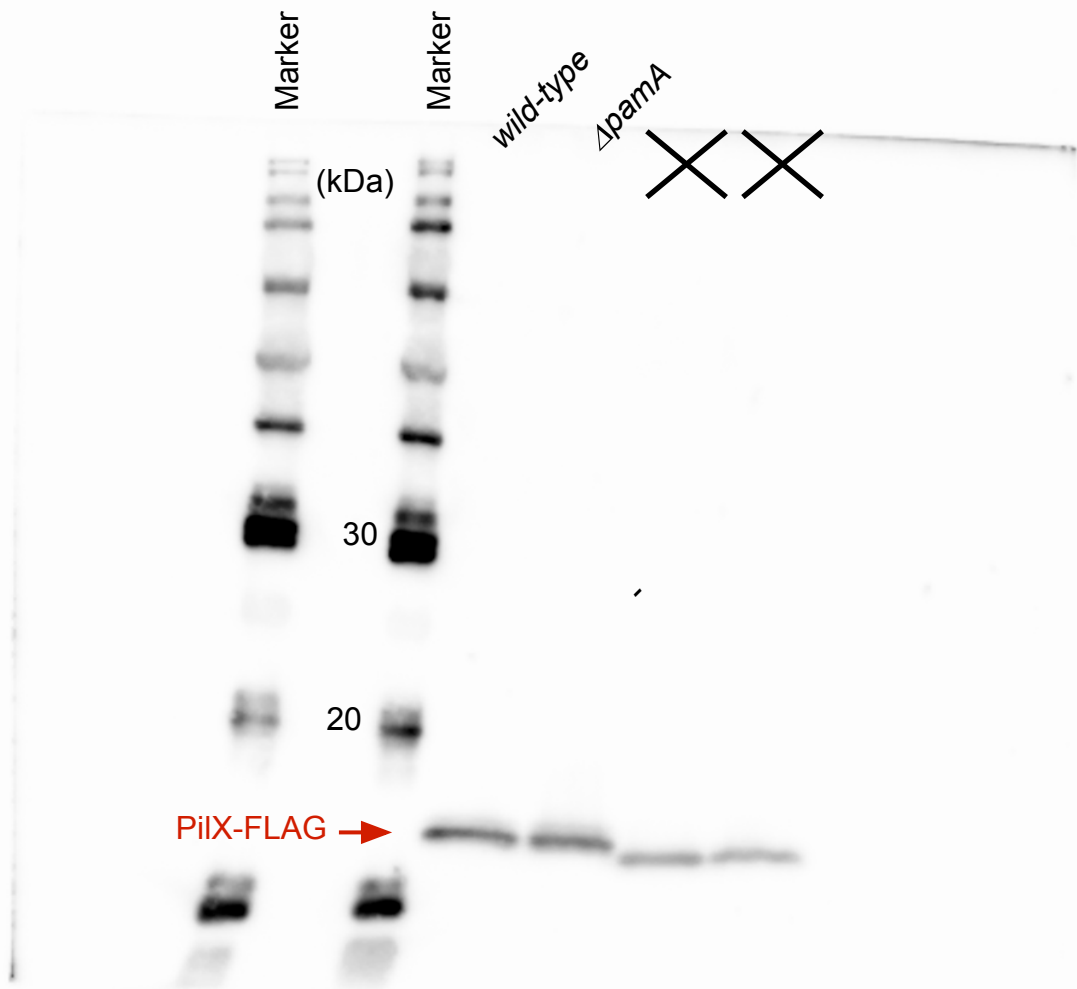
- @ PiE expression in these *N. meningitidis* strains by SDS-PAGE & Western blotting
- @ Detected by anti-PiE rabbit serum & anti-rabbit-HRP conjugate-2nd antibody
- @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Used by cutting out the left part of the image

Fig 7B_raw_image

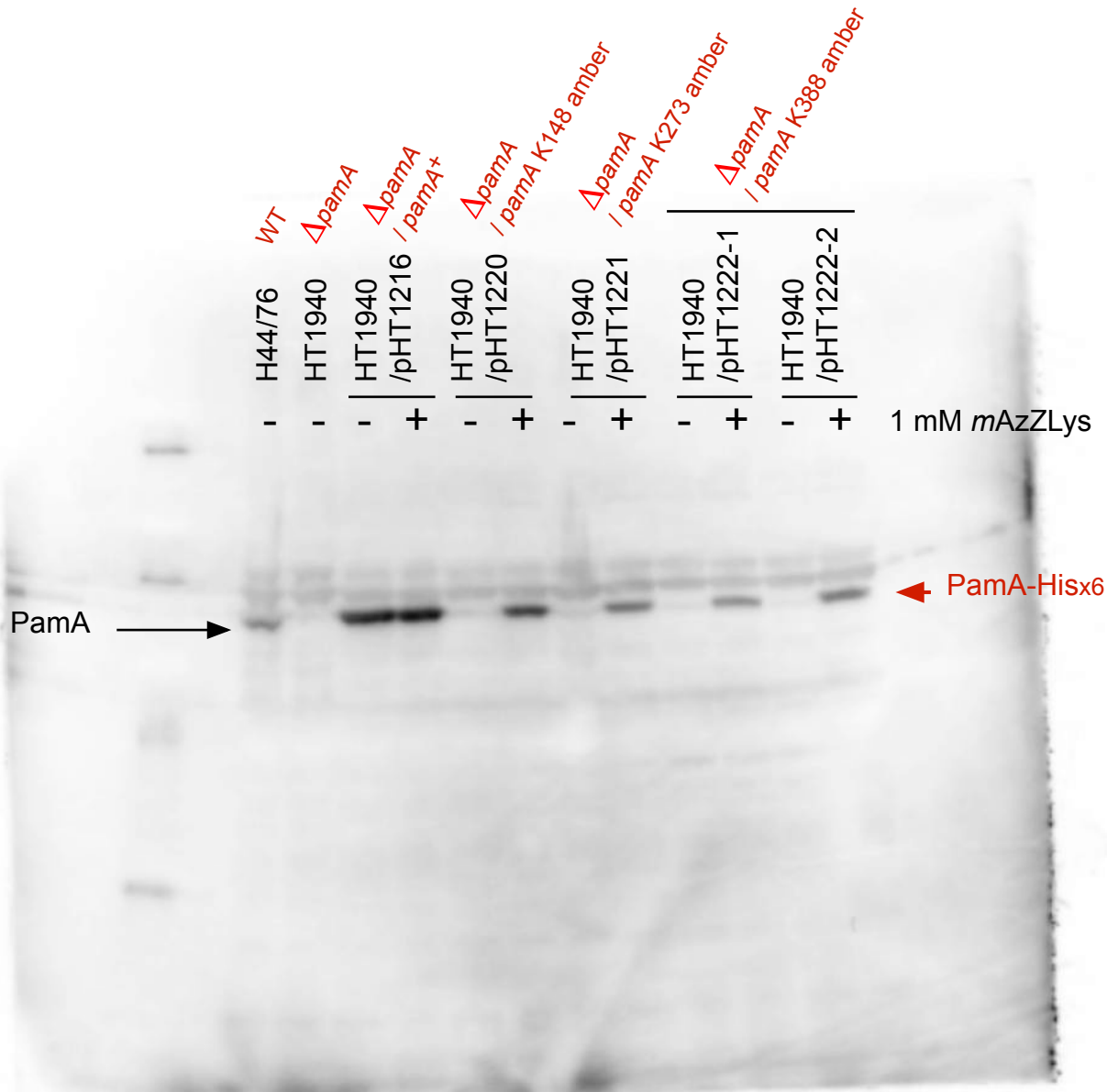


- @ PiIV expression in these *N. meningitidis* strains by SDS-PAGE & Western blotting
- @ Detected by anti-PiIV rabbit serum & anti-rabbit-HRP conjugate-2nd antibody
- @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Used by cutting out the right part of the image

Fig 7C_raw_image



- @ PiIX-FLAG expression in these *N. meningitidis* strains by SDS-PAGE & Western blotting
- @ Detected by anti-FLAG mAb & anti-mouse-HRP conjugate-2nd antibody
- @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Used by cutting out the middle part of the image

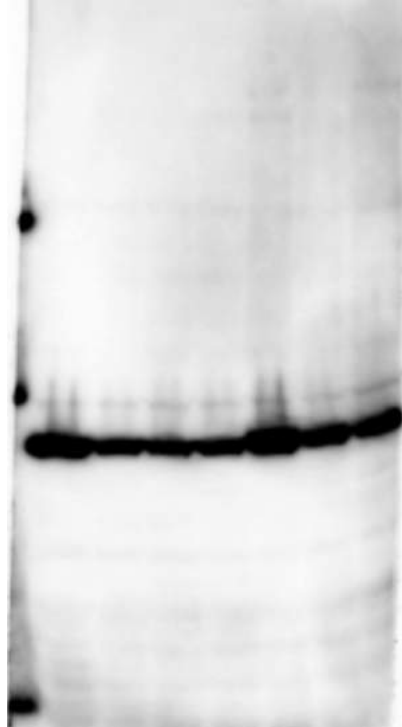


laclq-Ptac-pyIRS (Y306A/384F)/T + pamA
allele on IncQ

- @ mAzZLys-dependent expression of PamA amber mutants by SDS-PAGE & Western blotting
- @ Detected by anti-PamA rabbit serum & anti-rabbit-HRP conjugate-2nd antibody
- @ Captured by Chemiluminace imaging system: FUSION SOLO 5 (M&S)
- @ Used by cutting out the left part of the gel

Δ pamA / pamA +
 HT1940 / pHT1216
 + / -
 Δ pamA / pamA K148 amber
 HT1940 / pHT1220
 + / -
 Δ pamA / pamA K273 amber
 HT1940 / pHT1221 / pamA K273 amber
 + / -
 Δ pamA / pamA K388 amber
 HT1940 / pHT1222 / pamA K388 amber
 + / -

UV irradiation



↗
 ↘
 Crosslinked candidates

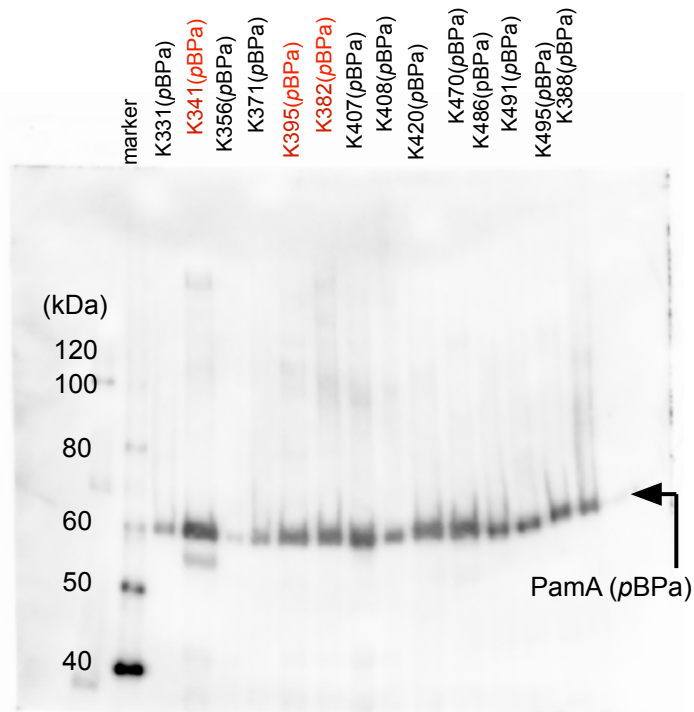
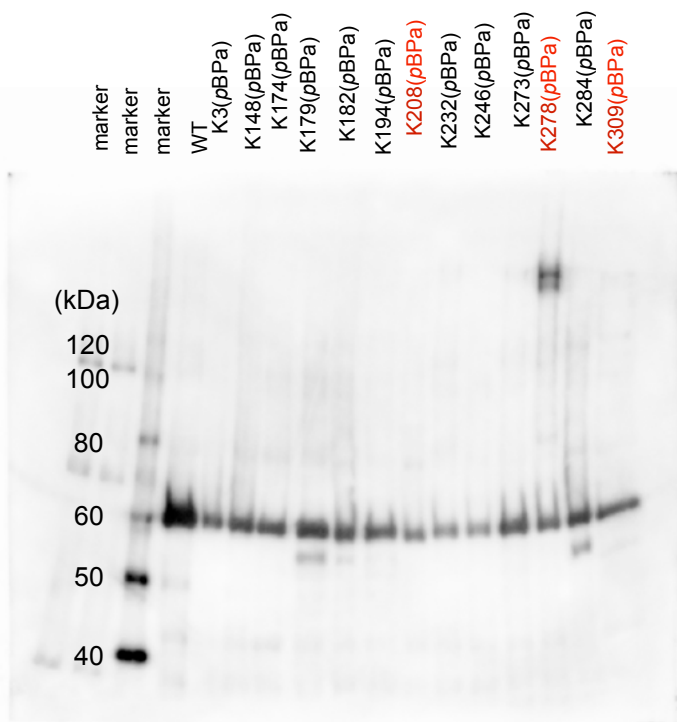
← PamA His x6

@ UV crosslinked band to the PamA protein containing *mAzZLys* in *N. meningitidis* by SDS-PAGE & Western blotting

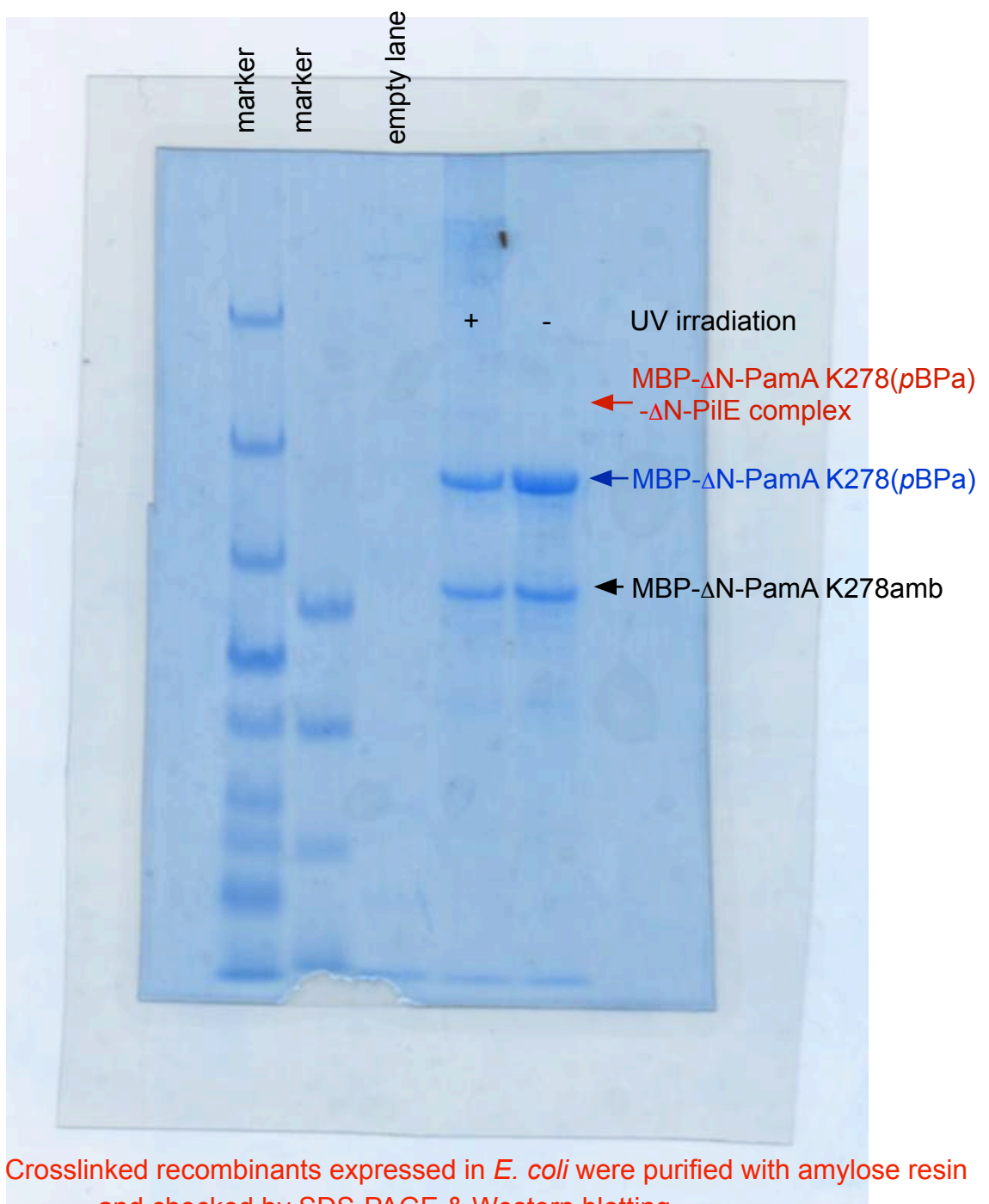
@ Detected by anti-(His)₆ mAb & anti-mouse-HRP conjugate-2nd antibody

@ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

@ Used this image directly



- @ Purified samples with His resin & analyzed by SDS-PAGE & Western blotting
- @ Detected by anti-(His)₆ mAb & anti-mouse-HRP conjugate-2nd antibody
- @ Captured by Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Use this image without any modification

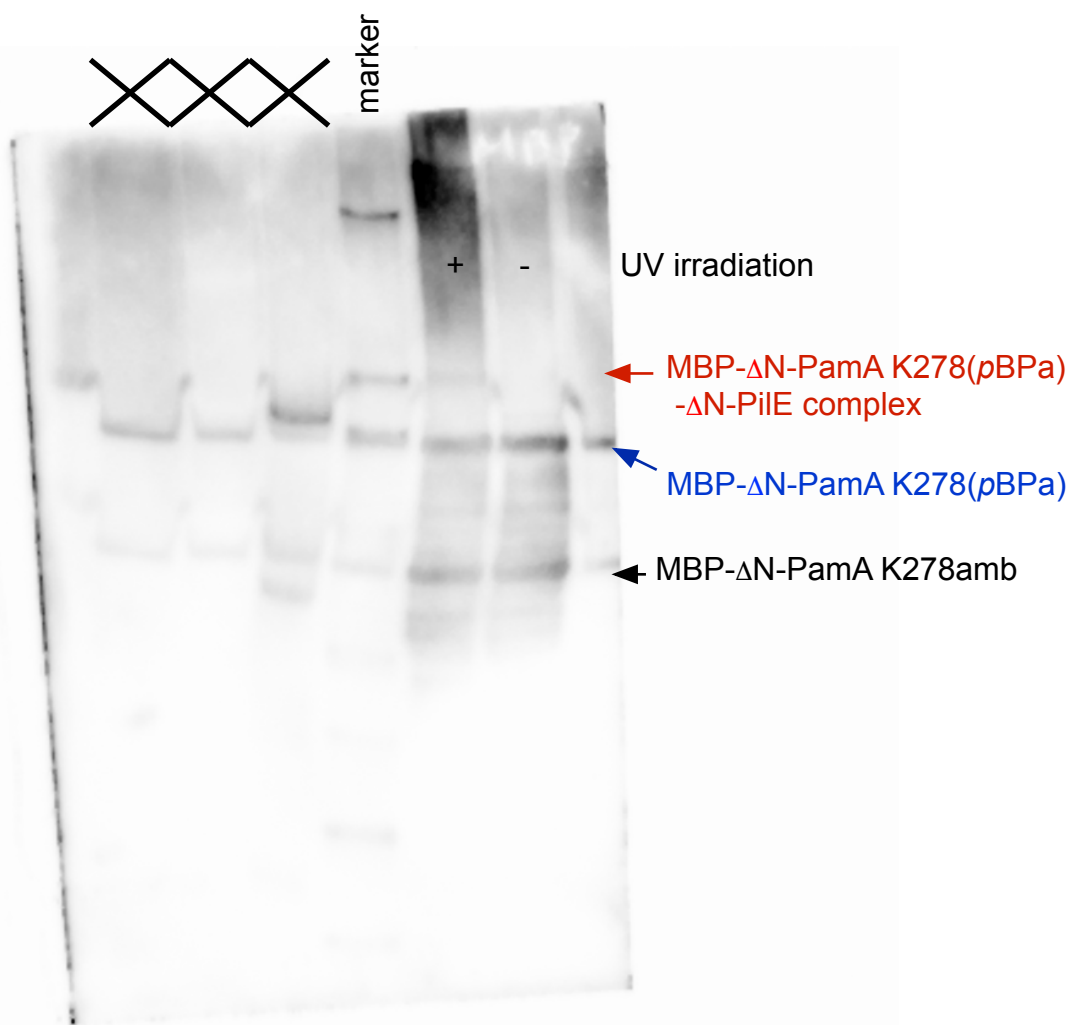


@ Crosslinked recombinants expressed in *E. coli* were purified with amylose resin and checked by SDS-PAGE & Western blotting

@ Detected by staining with CBB

@ Captured by scanner

@ Used by cutting out the left part of the gel

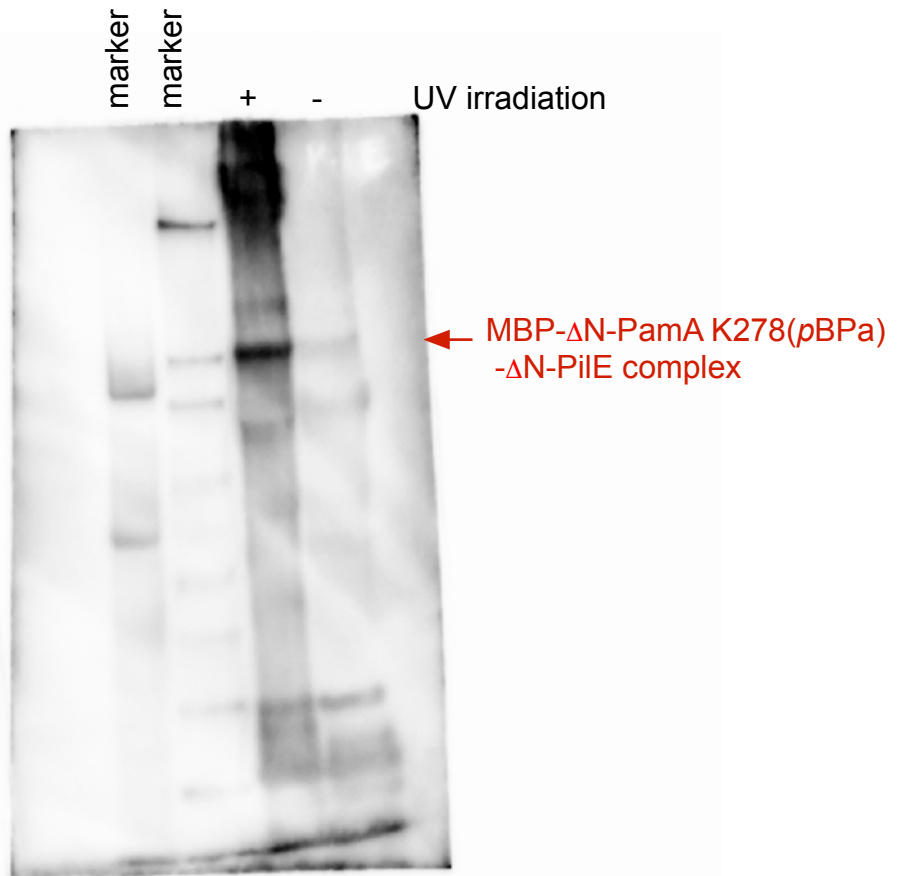


@ Crosslinked recombinants expressed in *E. coli* were purified with amylose resin and checked by SDS-PAGE & Western blotting

@ Detected by staining with anti-MBP mAb & anti-mouse-HRP 2nd antibody

@ Chemiluminescence imaging system: FUSION SOLO 5 (M&S)

@ Used by cutting out the right part of the image



- @ Crosslinked protein recombinants expressed in *E. coli* were purified with amylose resin and checked by SDS-PAGE & Western blotting
- @ Detected with ant-PilE rabbit serum & anti-rabbit-HRP 2nd antibody
- @ Chemiluminescence imaging system: FUSION SOLO 5 (M&S)
- @ Used the entire image