Product Datasheet

PIA-PINK-*His* Conjugate Pad

Gold labelled mouse-anti-(His)6-tag antibody for immunodetection

PIA-PINK-His Conjugate Pads

Product number and packaging unit

V102-10 PIA-PINK-*His Conjugate Pad* 10 Pc.

V102-20 PIA-PINK-*His Conjugate Pad* 30 Pc.

Overview

Product name	**PIA-PINK-*His* Conjugate Pads**
Specificity	Reacts with recombinant proteins containing an epitope of at least 6 histidine residues (N-, C-terminus or both termini). A higher number of histidine residues leads to an increase in binding affinity.
Immunogen	Recombinant (HIS) 6-p53 protein
Host species	Mouse
Class	Monoclonal; purified from the cell culture supernatant.
Clone	Clone 13/45/31-2
Isotype	Mouse IgG1, kappa
Conjugation	60 nm gold nanoparticles with an absorption maximum of 540 nm
Tested applications	Western blot, dot blot
Other applications	Colony test, plate test
Product form	Mouse IgG1 conjugated to gold nanoparticles (⌀ 60 nm). Immobilized on cotton filter pads. For reconstitution in 10 ml 1x TBS supplemented with 1.5 % BSA and 0.1 % Tween 20, pH 8.0.
Transport	Ambient temperature
Storage conditions	Room temperature (18 °C - 23 °C)
Shelf life	12 months

PIA-PINK-*His* is only for research and development purposes. Not approved for medical applications.

PIA-PINK-*His* is a conjugate of anti-His-tag antibody and gold nanoparticles. It is suitable for immuno-based detection of poly-histidine-labelled proteins

PIA-PINK-*His* Conjugate Pad is tested for western blot and dot blot. The conjugate can also be used for detection in colony tests and plate tests. It reduces the steps of antibody binding, washing and detection to a single step, usually completed in 20 to 60 minutes. No secondary antibody is needed.

PIA-PINK-*His* Conjugate Pad contains conjugate immobilised on a cotton pad. Like this, the conjugate is stable at room temperature even without addition of conservatives.

The conjugate is reconstituted in 10 mL **blocking buffer**. For reconstitution use 10 ml 1x TBS supplemented with 1.5 % BSA and 0.1 % Tween 20, pH 8.0. The ideal Tween 20 concentration depends on your sample and thus requires individual adaptation. Each Pad contains the optimal amount of conjugate for immunostaining an 8 x 10 cm mini-gel.

On the blot membranes, the result is visible as a persistent, pink-coloured accumulation of the conjugate on the target protein, and can be documented with commercially available cameras.

The detection range of quantitative analysis can be varied by selecting the appropriate amount of pads. (Table Quantitative Detection Range)

The quantitative detection range of one pad is in the pico-mol range. Reconstitution of one pad in 10 mL blocking buffer (1xTBST + BSA) is suitable for blot detection of proteins from overexpression approaches.

The quantitative detection range of three pads is in the femto-mol range. Reconstitution of three pads in 10 mL blocking buffer (1xTBST + BSA) is suitable for blot detection of proteins from moderate expression approaches and interaction studies.

Addition of Tween 20 is essential for reconstitution of the conjugate.

The following table gives guideline values for the detection range of poly-histidine-labelled proteins of different molecular weights.

Quantitative Detection Range Dot Blot 0.5 µL drops	**10 kDa**	**30 kDa**	**50 kDa**	**100 kDa**
1 Pad / 10 mL (8 - 50 pmol/mm^2)	0.08 – 0.5 µg	0.24 – 1.5 µg	0.4 – 2.5 µg	0.8 – 5 µg
3 Pad / 10 mL (80 - 5000 fmol/mm^2)	0.8 – 50 ng	2.4 - 150 ng	4 – 250 ng	8 – 500 ng

Quantitative Detection Range Western Blot from Mini-Gel	**10 kDa**	**30 kDa**	**50 kDa**	**100 kDa**
1 Pad / 10 mL (8 - 50 pmol/mm^2)	0.24 – 1.5	0.72 – 4.5 µg	1.2 – 7.5 µg	2.4 – 15 µg
3 Pad / 10 mL (80 - 5000 fmol/mm^2)	2.4 – 150 ng	7.2 - 450 ng	12 – 750 ng	24 – 1500 ng

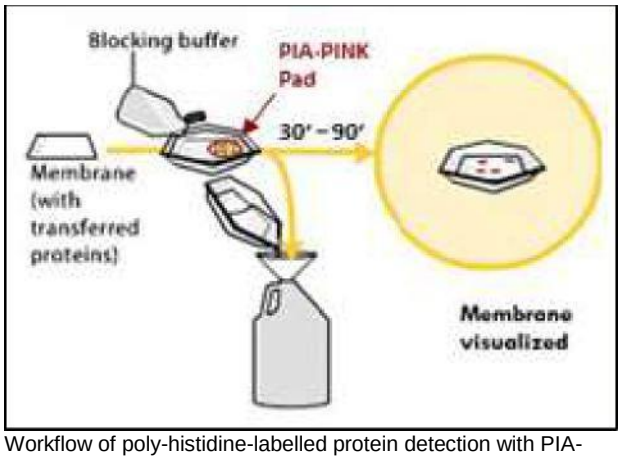
PIA-PINK-*His* Conjugate Pad is equally suitable for staining nitrocellulose and PVDF.

Implementation

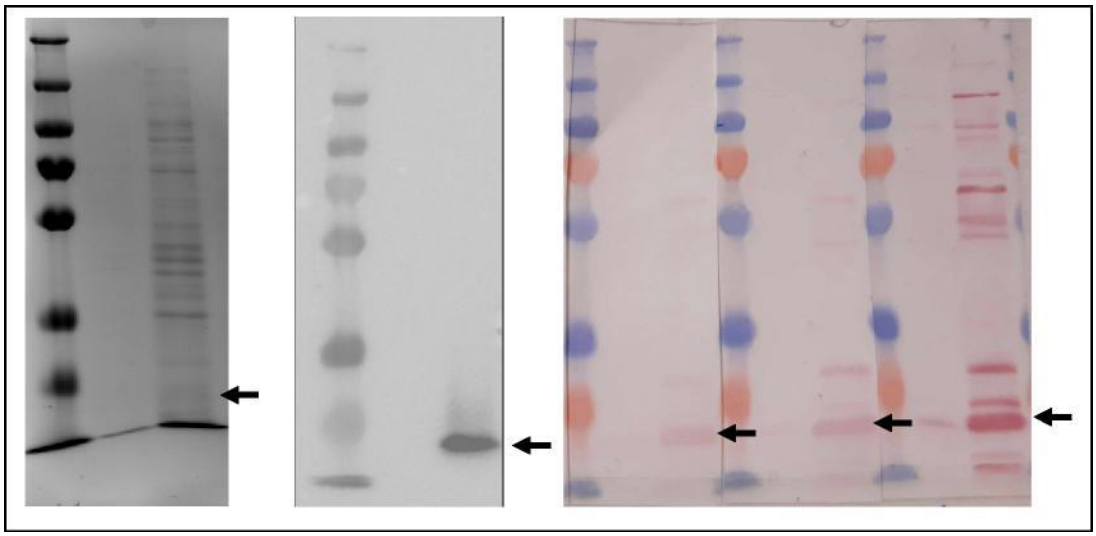
Quick Guide

Dried membrane (blot) carrying poly-His-tagged protein

- **rinse thoroughly with distilled water**
- **place into a clean incubation tray**
- **cover with 10 mL blocking reagent**
- **add 1 to 3 PIA-PINK-His Conjugate Pads**
- **incubate in reagent for 20 – 90 minutes**
- **dry between filter paper**
- **continue incubation if necessary**

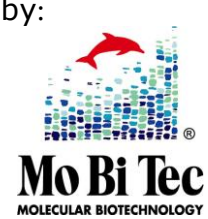


Workflow of poly-histidine-labelled protein detection with PIA-PINK-His Conjugate Pads.



Comparison of conventional detection methods and PIA-PINK-His Pad using lysates of two *E. coli* (DE3) expression batches of a poly-histidine tagged 21 kDa protein. In each case: pre-stained markers on the left, sample before IPTG addition, sample before cell harvest. The arrows mark the target protein. Left: Coomassie staining (14 h); Middle: -anti-His antibody / anti-mouse HRP antibody with ECL reagent (18 h); Right: PIA-PINK His Pads: left 1 pad, middle 2 pads, right 3 pads (1 h). In addition to the target protein *E. colis* own, histidine-rich proteins become visible as the amount of conjugate increases.

Distributed by:



MoBiTec GmbH • Lotzestrasse 22a • 37083 Goettingen • Germany
Phone: +49 551 70722 0 • E-Mail: info@mobitec.com • www.mobitec.com

Valid from 2019, Dec 11

PiNa-Tec
Notkestrasse 85 - D-22607 Hamburg

Telephone: +49 (0) 40 646 33960 - Mobile: +49 (0) 176 209 40402 Email: katja.werner@pina-tec.de - Internet: www.pina-tec.de