PRODUCT INFORMATION

Nickel Coated Plates Clear 8-well Strip

PRODUCT CODE: X-MTP-0001-5X

STORAGE: room temperature

PRODUCT DESCRIPTION

Immobilized metal affinity interaction allows polyhistidine tag containing protein to be captured on surfaces that contain chelated divalent ions such as Ni^{2+}, Cu^{2+}, Co^{2+} and Zn^{2+}. Cobalt in comparison to Nickel has lower affinity but highly specific binding.

BioThinx Nickel coated plates are designed for capture, detection and purification of polyhistidine tagged proteins and peptides. This product may be used with His-tagged molecules in various applications such as recombinant protein expression screening, immunoabsorbtion assays, biochemical assays, competition assays and protein purification. The captured proteins or peptides can be detected using standard ELISA techniques or eluted for further analysis.

PRECAUTIONS AND DISCLAIMER

This product is for LABORATORY RESEARCH USE ONLY, not for diagnostic, therapeutic, drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

FORMULATION

Nickel coated micro assay plate: 96 wells, configured in twelve 1x8 strips, each coated plate is packed in a barrier bag with desiccant. The wells are coated to a 100µl depth and are supplied pre-blocked.

PREPARTION AND HANDLING

The following protocol is a simple direct ELISA protocol and the protocol and reagents used will have to be optimized for specific applications and assays. Avoid using buffer that contain EDTA or other metal chelators, avoid reducing agents and avoid imidazole.

1. Wash the wells to be used with 200µl Wash Buffer (tris buffered saline or phosphate buffered saline, pH 7-7.5, containing 0-05 % TWEEN® 20 or an appropriate Wash Buffer of choice.
2. Dilute the sample with (tris buffered saline or phosphate buffered saline, pH 7-7.5, containing 0.05 % BSA or an appropriate Dilution Buffer of choice and add 100µl diluted sample to each well.
3. Incubate at room temperature for 1-2 hours with shaking.
4. Wash each well three times with 200µl Wash Buffer.
5. Add 100µl enzyme labelled primary antibody.
6. Incubate at room temperature for 0.5-1 hour with shaking.
7. Wash each well three times with 200µl Wash Buffer.
8. Detect the label signal with appropriate substrate.

STORAGE / STABILITY

Store unopened at ambient temperature. Once opened the plates can be stored in the resealable bag (ZipLoc) with desiccant.

RECOMMENDED RETEST DATE

07/2021

BACKGROUND REFERENCES

1. Hochuli, E., et al., New metal chelate adsorbent for proteins and peptides containing neighbouring histidine residues, J. Chromatogr., 411, 177-84 (1987).

2. Block, H., et al., Immobilized-metal affinity chromatography (IMAC): a review. In: Richard, B.R. and Deutscher, M.P., eds. Methods Enzymol. 463, 439–73 (2009).