USER MANUAL
CK-TN-1-B48

dynamic BIOSENSORS

# NTA kit 1

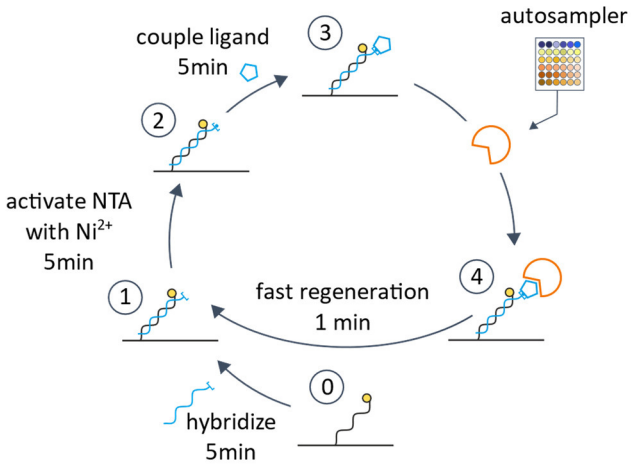
Tris-NTA reagents for capturing His-tagged molecules with B48mer

## Key Features

- Capturing of His-tagged peptides and proteins
- Compatible with all **switch**SENSE®
  *Multi-purpose biochips* carrying sequence A48 and B48
- Suitable for parallel measurements via DNA encoded addressing
- Includes reagents for 20 x 10 functionalizations

# Workflow Overview

## Workflow Overview with Tris-NTA nanolevers – normal regeneration




⓪→①

Functionalization of the **switch**SENSE® biochip with Tris-NTA carrying nanolevers.

①→②

Activation of Tris-NTA with $Ni^{2+}$ ions

②→③

His-tagged Ligand Binding

③→④

Interaction Measurement

④→①

Fast regeneration (EDTA)

## Important Notes

- His-tagged proteins slowly dissociate from Tris-NTA. Hence, very slow dissociations ($k_{OFF}$ < 1E-3$s^{-1}$) cannot be measured with this set-up.
- For fast regeneration the surface will be regenerated by washing with 100 mM EDTA to remove the His-tagged protein but keep the Tris-NTA.
- For more information please email to **support@dynamic-biosensors.com**.

## Product Description

Order Number **CK-TN-1-B48** (nanolever sequence B48)

TABLE 1 | Contents and storage information

| Material | Cap | Amount | Storage | Comment |
|---|---|---|---|---|
| cNL-A48 (400 nM in TE40[1]) | yellow | 4 x 100 µL | -20°C | |
| cNL-B48-NTA (400 nM in TE40[1]) | red | 20 x 20 µL | -20°C | |
| EDTA solution (100 mM) | trans-parent | 5 x 1.5 mL | -20°C | |
| Loading solution | trans-parent | 5 x 1.5 mL | -20°C | |

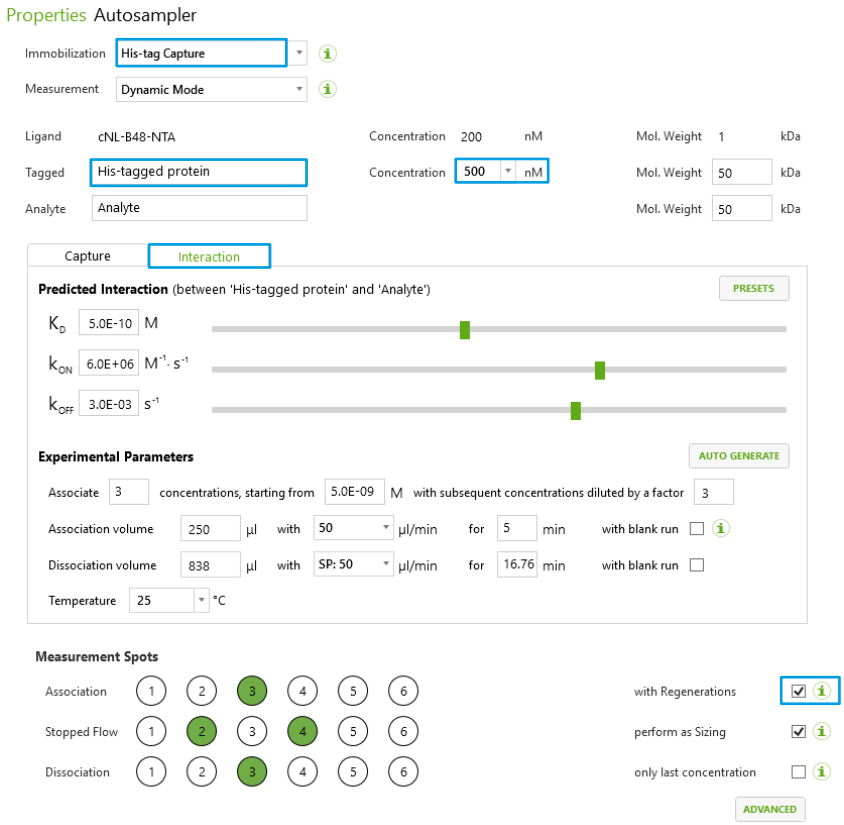
For *in vitro* use only.

Please check date of expiry on the kit. Products are shipped at ambient temperature.
The kit contains reagents sufficient for 20 new hybridizations and 200 fast regenerations.

[1] 10 mM Tris, 40 mM NaCl, 0.05 % Tween20, 50 µM EDTA, 50 µM EGTA

# Assay Setup in switchBUILD

## Setup a Kinetic Experiment with His-tag Capture




1) Selet “His-tag Capture“ as immobilization method.

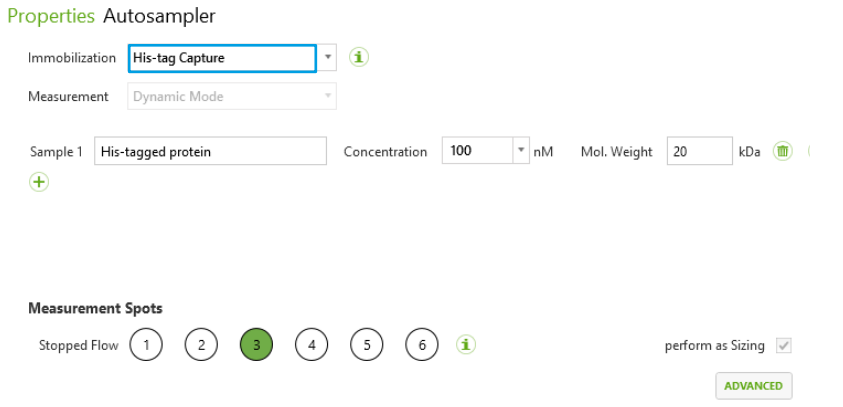
   → The ligand will automatically update to cNL-B48-NTA.

2) Enter the name and concentration of the his-tagged protein.

3) Set up the interaction of interest in the “Interaction” tab.

4) When “with regeneration“ is tagged, an EDTA regeneration will be performed removing the his-tagged protein from the surface. This is followed by a re-activating the NTA surface and immobilization of fresh ligand protein.

## Setup a Sizing Experiment with His-tag Capture




1) Selet “His-tag Capture“ as immobilization method.

## My Notes

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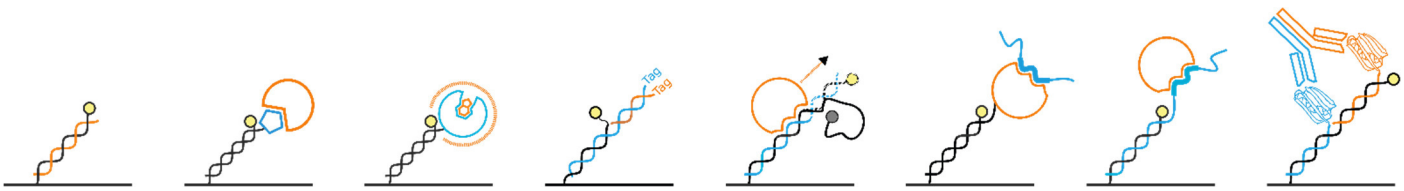

**switch**SENSE® is a proprietary measurement technology by Dynamic Biosensors GmbH.
Instruments and biochips are engineered and manufactured in Germany.