



## PRODUCT INFORMATION

### **Biotin Nickel Conjugate – 1.0 mg**

PRODUCT CODE: X-CON-0009-1MG

STORAGE: 2 - 8 °C, protected from sun light.

### **PRODUCT DESCRIPTION**

Biotin binds to streptavidin with high affinity. The streptavidin-biotin bond is one of the strongest non-covalent interaction in nature, making it extraordinarily robust. Metal affinity interaction allows polyhistidine tag containing protein to be complexed and detected with molecules that contain chelated divalent ions such as Ni<sup>2+</sup>, Cu<sup>2+</sup>, Co<sup>2+</sup> and Zn<sup>2+</sup>.

Biotin and chelated Ni<sup>2+</sup> is conjugated with a bovine serum albumin carrier under optimal conditions. Biotin Nickel Conjugate is useful as a reagent for detecting polyhistidine tag containing proteins in ELISA and western-blotting procedures.

### **PRECAUTIONS AND DISCLAIMER**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### **FORMULATION**

For shipping at ambient temperature Biotin Nickel Conjugate is dried with a HEPES, NaCl, sucrose buffer base.

### **PREPARTION AND HANDLING**

The product should be reconstituted with 100 µl water yielding a concentration of 10 mg/ml. The reconstituted stock solution can be frozen in aliquots for later usage. Stock solutions can be diluted in buffers containing > 0.1 % BSA as needed. Avoid using buffer that contain EDTA or other metal chelators, avoid reducing agents, sodium acid and imidazole.

### **STORAGE / STABILITY**

For long term storage the dry-stabilized Biotin Nickel Conjugate should be stored between 2 °C and 8 °C. Reconstituted stock solutions can be stored at 2 - 8 °C for up to 2 weeks. For long term storage, stock solutions can be frozen in working aliquots. Repeated freeze-thaw cycles should be avoided.

### **RECONSTITUTION AND CONCENTRATION**

10 mg/ml after reconstitution with 100 µl H<sub>2</sub>O.

### **RECOMMENDED ELISA DILUTION**

1:500 – 1: 5000 in secondary ELISA detection. For optimal performance the reagent should be titrated for each application.

### **RECOMMENDED RETEST DATE**

09/2022

### **BACKGROUND REFERENCES**

1. Wong, J., et al., Direct force measurements of the streptavidin –biotin interaction, *Biomolecular Engineering*, 16, 45-55 (1999).
2. Hochuli, E., et al., New metal chelate adsorbent for proteins and peptides containing neighbouring histidine residues, *J. Chromatogr.*, 411, 177-84 (1987).