

## Product Specification Sheet

**Product:** Biotin Conjugated Affinity Purified anti-Frequenin\* (recombinant) [Chicken]

**Code:** 600-906-216

**Lot #** 999536

**Size:** 0.2 mg

**Physical State:** Liquid (sterile filtered)

**Antibody Concentration:** 1.0 mg/ml (by UV absorbance at 280 nm)

**Label:** Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC)

**Biotin/Protein Ratio:** 10-20 BAC molecules per Chicken IgG molecule

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Stabilizer:** 10 mg/ml Bovine Serum Albumin (BSA) IgG and Protease free

**Preservative:** 0.01% (w/v) Sodium Azide

**Application(s):** Suitable for ELISA, immunoblotting, immunohistochemistry, conjugation and most immunological methods requiring lot-to-lot consistency, high titer and specificity.

**Recommended Dilution(s):** This product was assayed by immunoblot and found to be reactive against Frequenin at a dilution of 1:1000 followed by a 1:2000 reaction with streptavidin-peroxidase (Code # S000-03). Anti-Frequenin is suitable for the detection by immunoblot of human, mouse and rat Frequenin. Optimal titers for other applications should be determined by the researcher.

**Storage Conditions:** Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening product.

**Purity:** This product was prepared from chicken egg yolk by selective precipitation followed by immunoaffinity chromatography using Frequenin (recombinant) coupled to agarose beads. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Chicken Serum.

**Specificity:** This affinity purified polyclonal antibody reacts with frequenin from most mammalian sources. Frequenin is a  $Ca^{2+}$  binding protein implicated in the regulation of neurotransmitter release at the neuromuscular junction. Frequenin amino acid sequences from different species appear closely related. In mouse a single 4.2 kbp mRNA is produced yielding a protein of 22kDa when assayed by SDS-PAGE under reducing conditions. Frequenin may colocalize with the dendritic marker MAP-2 and is widely distributed in the brain, spinal cord and dorsal root ganglia. Reactivity with avian and invertebrate frequenin is likely. In *Drosophila* frequenin is related to recoverin and visinin and functions like  $Ca^{2+}$ -sensitive guanylyl cyclase activator.

**Immunogen:** Frequenin (recombinant from Mouse with extensive post-translational modifications)

**Conjugation Reference:** Bayer & Wilchek *Methods in Enzymology* **184**; 138-160, 1990.

**Note:** This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. \*Frequenin is the term used to describe the invertebrate homolog of NCS-1 (neuronal calcium sensor-1). The term NCS-1 has been reserved for the protein observed in humans and other mammals, whereas frequenin has been used to describe the homolog in *Drosophila* and *Xenopus*.

