**BACKGROUND**

Biotin, a water-soluble B complex vitamin, is required by all organisms but can only be synthesized by yeasts, molds, algae, some plant species and bacteria. Biotin, a tetrahydropyridine ring fused with an ureido (tetrahydro-imidizalone) ring, is important in the catalysis of essential metabolic reactions to synthesize fatty acids, to metabolize leucine and in gluconeogenesis. Human intestinal bacteria generally produce in excess of the body's daily Biotin requirement. The occurrence of Biotin in nature is widespread and, although extremely rare, Biotin deficiency is associated with dermatitis, nausea, loss of hair, depression, muscle pain and reproductive disturbances.

**REFERENCES**


**SOURCE**

Biotin (BK-1/39) is a mouse monoclonal antibody raised against Biotin conjugated to keyhole limpet hemocyanin.

**PRODUCT**

Each vial contains 200 µg IgG1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Biotin (BK-1/39) is recommended for detection of Biotin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10 - 1:100), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); permits the formation of antibody-Biotin complexes, thus enhancing the sensitivity of the detection system.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.