**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 tetrahydrothiophene ring fused with an ureido (tetrahydro-imidazalone) 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 IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Biotin (BK-1/39) is available conjugated to agarose (sc-53179 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53179 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-53179 PE), fluorescein (sc-53179 FITC), Alexa Fluor® 488 (sc-53179 AF488), Alexa Fluor® 546 (sc-53179 AF546), Alexa Fluor® 594 (sc-53179 AF594) or Alexa Fluor® 647 (sc-53179 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-53179 AF680) or Alexa Fluor® 790 (sc-53179 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**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.

**REFERENCES**


**STORAGE**

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

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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