**BACKGROUND**

BUP-1 (β-ureidopropionase), also known as β-alanine synthase or N-carbamyl-β-alanine amidohydrolase, belongs to the BUP subfamily within the CN hydrolase family. BUP-1 is found in liver and kidney, localizing to the cytoplasm, and contains one CN hydrolase domain. BUP-1 catalyzes the third and last step in the degradation of thymine and uracil, the hydrolysis of N-carbamyl-β-aminoisobutyric acid (or N-carbamyl-β-alanine) to β-aminoisobutyric acid (or β-alanine), ammonia and CO₂. Deficiency in BUP-1 leads to elevated levels of N-carbamyl-β-aminoisobutyric acid and N-carbamyl-β-alanine in plasma, cerebrospinal fluid and urine, which may result in abnormal neurological activity.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: UPB1 (human) mapping to 22q11.23; Upb1 (mouse) mapping to 10 C1.

**SOURCE**

BUP-1 (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 277-311 within an internal region of BUP-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

BUP-1 (F-11) is recommended for detection of BUP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BUP-1 siRNA (h): sc-62028, BUP-1 siRNA (m): sc-62029, BUP-1 shRNA Plasmid (h): sc-62028-HS, BUP-1 shRNA Plasmid (m): sc-62028-SH, BUP-1 shRNA (h) Lentiviral Particles: sc-62028-V and BUP-1 shRNA (m) Lentiviral Particles: sc-62029-V.

Molecular Weight of BUP-1: 43 kDa.

Positive Controls: human liver extract: sc-363766, rat liver extract: sc-2395 or rat kidney extract: sc-2394.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**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.