Recombinant Protein Technical Manual

Recombinant Human BUP1 Protein (His Tag)

RPES3632

Product Data:

Product SKU: RPES3632

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q9UBR1

Protein Information:

Molecular Mass: 44.2 kDa

AP Molecular Mass: 42 kDa

Tag: C-6His

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at<-20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Beta-Ureidopropionase; BUP; Beta-Alanine Synthase; N-Carbamoyl-Beta-Alanine Amidohydrolase; UPB1; BUP1

Immunogen Information:

Sequence: Met 1-Glu384

Background:

β-Ureidopropionase is a cytoplasmic protein which belongs to the CN hydrolase family of BUP subfamily. β-Ureidopropionase binds one zinc ion per subunit, catalyzes the last step in the pyrimidine degradation pathway. β-Ureidopropionase can convert N-carbamyl-beta-aminoisobutyric acid and N-carbamyl-beta-alanine to beta-aminoisobutyric acid and beta-alanine, ammonia and carbon dioxide, respectively. The pyrimidine bases uracil and thymine are degraded via the consecutive action of dihydropyrimidine dehydrogenase (DHPDH), dihydropyrimidinase (DHP) and beta-ureidopropionase (UP) to beta-alanine and beta aminoisobutyric acid, respectively. Defects in β-Ureidopropionase are the cause of β-Ureidopropionase deficiency that is characterized by muscular hypotonia, dystonic movements, scoliosis, microcephaly and severe developmental delay.