

Recombinant Human UPB1, His-tagged

Cat. No. UPB1-49H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human β -Ureidopropionase/UPB1 is produced by our E. coli expression system. The target protein is expressed with sequence (Met1-Glu384) of Human UPB1 fused with a His tag at the C-terminus.
Species	Human
Source	E.coli
ProteinLength	1-384 a.a.
Description	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.
Form	Supplied as a 0.2 μ M filtered solution of 20mM PB, 150mM NaCl, pH 7.4

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AA Sequence

MAGAEWKSLEECLEKHLPLPDLQEVKRVLYGKELRKLDLPREAFEAAASREDFELQG
 YAFEAAEEQ LRRPRIVHVGLVQNRIPANAPVAEQVSALHRRRIKAIVEVAAMCGVNI
 ICFQEAWTMPFAFCTR EKLPWTEFAESAEDGPTTRFCQKLAKNHDMVVVSPILERD
 SEHGDVLWNTAVVISNSGAVLGKTR KNHIPRVGDFNESTYYMEGNLGHVPVFTQF
 GRIAVNICYGRHHPLNWL MYSINGAEIIFNPSATI GALSESLWPIEARNAAIANHCFTC
 AINRVGTEHFPNEFTSGDGKKAHQDFGYFYGSSYVAAPDSS RTPGLSRSRDGLLV
 AKLDLNLCCQVNDVWNFKMTGRYEMYARELAEAVKSNYSPTIVKEVEHHHH HH

Endotoxin Less than 0.1 ng/μg (1 IEU/μg).

Purity Greater than 95% as determined by reducing SDS-PAGE.

Storage Store at Please minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name UPB1 ureidopropionase, beta [Homo sapiens]

Official Symbol UPB1

Synonyms UPB1; ureidopropionase, beta; beta-ureidopropionase; BUP1; BUP-1; beta-alanine synthase; n-carbamoyl-beta-alanine amidohydrolase;

Gene ID 51733

mRNA Refseq NM_016327

Protein Refseq NP_057411

MIM 606673

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UniProt ID	Q9UBR1
Chromosome Location	22q11.2
Pathway	Drug metabolism - other enzymes, organism-specific biosystem; Drug metabolism - other enzymes, conserved biosystem; Fluoropyrimidine Activity, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem; Pantothenate and CoA biosynthesis, organism-specific biosystem;
Function	beta-ureidopropionase activity; hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds; metal ion binding;

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