

Recombinant Human BTD, His-tagged

Cat. No. BTD-46H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human Biotinidase/BTD is produced with our mammalian expression system in human cells. The target protein is expressed with sequence (Ala42-Asp543) of Human BTD fused with a polyhistidine tag at the C-terminus.

Species Human

Source HEK293

ProteinLength 42-543 a.a.

Description Biotinidase is a secreted enzyme that belongs to the CN hydrolase family of BTD/VNN subfamily. Biotinidase Contains 1 CN hydrolase domain. Biotinidase allows the body to use and to recycle the B vitamin biotin, sometimes called vitamin H. Biotinidase extracts biotin from food because the body needs biotin in its free, unattached form. This enzyme also recycles biotin from enzymes in the body that use it as a helper component in order to function. Biotinidase catalyzes release of biotin from biocytin, the product of biotin-dependent carboxylases degradation. These enzymes, known as carboxylases, are important in the processing of fats, carbohydrates, and proteins. Biotin is attached to these carboxylase enzymes through lysine, forming a complex called biocytin. Biotinidase removes biotin from biocytin and makes it available to be reused by other enzymes. Defects in Biotinidase causes biotinidase deficiency, which is a multiple carboxylase deficiency, characterized by seizures, hypotonia, skin rash, alopecia, ataxia, hearing loss, and optic atrophy.

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Form	Supplied as a 0.2 μM filtered solution of 20mM Tris-HCl, 150mM NaCl, 10% Glycerol, pH 7.5
AA Sequence	AHTGEESVADHHEAEYYVAAYVEHPSILSLNPLALISRQEALELMNQNLDIYEQQVM TAAQKDVQ IIVFPEDGIHGFFNTRTSIYPFLDFMPSPQVVRWNPCLEPHRFNDTEVL QRLSCMAIRGDMFLVA NLGTKEPCHSSDPRCPKDGRYQFNTNVVFSNNGTLVDRY RKHNLYFEAAFDVPLKVDLITFDTPF AGRFGIFTCFDILFFDPAIRVLRDYKVKHVVYP TAWMNQLPLLAAIEIQKAFVAFAFINVLAANV HHPVLGMTGSGIHTPLESFWYHDME NPKSHLIIAQVAKNPVGLIGAENATGETDPSHSKFLKILS GDPYCEKDAQEVHCDEA TKWNVNAPPTFHSEMMYDNFTLVPVWGKEGYLHVCSNGLCCYLLYERP TSKELY ALGVFDGLHTVHGTYYIQVCALVRCGGLGFDTCGQEITEATGIFEFHLWGNFSTSYIF PLFLTSGMTLEVDPQLGWENDHYFLRKSRLSSGLVTAALYGRLYERDVDHHHHHH
Endotoxin	Less than 0.1 ng/μg (1 IEU/μg).
Purity	Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
Storage	Store at Please minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name	BTD biotinidase [Homo sapiens]
Official Symbol	BTD
Synonyms	BTD; biotinidase; biotinase;
Gene ID	686
mRNA Refseq	NM_000060

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Protein Refseq	NP_000051
MIM	609019
UniProt ID	P43251
Chromosome Location	3p25
Pathway	Biotin metabolism, organism-specific biosystem; Biotin metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; Vitamin digestion and absorption, organism-specific biosystem; Vitamin digestion and absorption, conserved biosystem;
Function	biotin carboxylase activity; biotinidase activity;

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