CLN3 cDNA Clone – Ceroid-Lipofuscinosis, Neuronal 3 (Human)

PRODUCT OVERVIEW

Product Name	CLN3, cDNA Clone
Full Product Name	CLN3 cDNA Clone
Product Gene Name	CLN3 cdna clone
Sequence	atgggaggct gtgcaggctc gcggcggcgc ttttcggatt ccgaggggga ggagaccgtc ccggagcccc ggctccctct gttggaccat cagggcgcgc attggaagaa cgcggtgggc ttctggctgc tgggcctttg caacaacttc tcttatgtgg tgatgctgag tgccgcccac gacatcctta gccacaagag gacatcggga aaccagagcc atgtggaccc aggcccaacg ccgatccccc acaacagctc atcacgattt gactgcaact ctgtctctac ggctgctgtg ctcctggcgg acatcctccc cacactcgtc atcaaattgt tggctcctct tggccttcac ctgctgccct acagcccccg ggttctcgtc agtgggattt gtgctgctgg aagcttcgtc ctggttgcct tttctcattc tgtggggacc agcctgtgtg gtgtggtctt cgctagcatc tcatcaggcc ttggggaggt caccttcctc tccctcactg ccttctaccc cagggccgtg atctcctggt ggtcctcagg gactggggga gctgggctgc tgggggccct gtcctacctg ggcctcaccc aggccggcct ctcccctcag cagaccctgc tgtccatgct gggtatccct gccctgctgc tggccagcta tttcttgttg ctcacatctc ctgaggccca ggaccctgga ggggaagaag aagcagagag cgcagcccgg cagcccctca taagaaccga ggccccggag tcgaagccag gctccagctc cagcctctcc cttcgggaaa ggtggacagt gttcaagggt ctgctgtggt acattgttcc cttggtcgta gtttactttg ccgagtattt cattaaccag ggacttttttg aactcctctt tttctggaac acttccctga gtcacgctca gcaataccgc tggtaccaga tgctgtacca ggctggcgtc tttgcctccc gctcttctct ccgctgctgt cgcatccgtt tcacctgggc cctggccctg ctgcagtgcc tcaacctggt gttcctgctg gcagacgtgt ggttcggctt tctgccaagc atctacctcg tcttcctgat cattctgtat gaggggctcc tgggaggcgc agcctacgtg aacaccttcc acaacatcgc cctggagacc agtgatgagc accgggagtt tgcaatggcg gccacctgca tctctgacac actggggatc tccctgtcgg ggctcctggc tttgcctctg catgacttcc tctgccagct ctcctga
Molecular Weight	45,155 Da
OMIM	204200
Vector	Please Inquire
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CLN3 cdna clone	MBS1277029 is a cDNA clone targeting CLN3.
Other Notes	Small volumes of CLN3 cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CLN3. It may not necessarily be applicable to this product.

NCBI GI #	33876650
NCBI GeneID	1201
NCBI Accession #	BC002394
UniProt Secondary Accession #	O00668; O95089; Q549S9; Q9UP09; Q9UP11; Q9UP12; Q9UP13; Q9UP14; B2R7J1; B4DXL3
UniProt Related Accession #	Q13286
NCBI Official Full Name	Homo sapiens ceroid-lipofuscinosis, neuronal 3, mRNA
NCBI Official Synonym Full Names	CLN3, battenin
NCBI Official Symbol	CLN3
NCBI Official Synonym Symbols	BTS; BTN1; JNCL
UniProt Protein Name	Battenin

UniProt Synonym Protein Names	Batten disease protein; Protein CLN3
Protein Family	Battenin
UniProt Gene Name	CLN3
UniProt Synonym Gene Names	BTS
UniProt Entry Name	CLN3_HUMAN
NCBI Protein Information	battenin
NCBI Summary for CLN3	This gene encodes a protein that is involved in lysosomal function. Mutations in this, as well as other neuronal ceroid-lipofuscinosis (CLN) genes, cause neurodegenerative diseases commonly known as Batten disease or collectively known as neuronal ceroid lipofuscinoses (NCLs). Many alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for CLN3	CLN3: Involved in microtubule-dependent, anterograde transport of late endosomes and lysosomes. Defects in CLN3 are the cause of neuronal ceroid lipofuscinosis type 3 (CLN3); also known as Batten disease. A form of neuronal ceroid lipofuscinosis. Neuronal ceroid lipofuscinoses are progressive neurodegenerative, lysosomal storage diseases characterized by intracellular accumulation of autofluorescent liposomal material, and clinically by seizures, dementia, visual loss, and/or cerebral atrophy. The hallmark of CLN3 is the ultrastructural pattern of lipopigment with a fingerprint profile, which can have 3 different appearances: pure within a lysosomal residual body; in conjunction with curvilinear or rectilinear profiles; and as a small component within large membrane-bound lysosomal vacuoles. The combination of fingerprint profiles within lysosomal vacuoles is a regular feature of blood lymphocytes from patients with CLN3. Belongs to the battenin family. 5 isoforms of the human protein are produced by alternative splicing. Protein type: Chaperone; Vesicle; Mitochondrial; Autophagy; Membrane protein, multi-pass; Apoptosis; Membrane protein, integral Chromosomal Location of Human Ortholog: 16p12.1 Cellular Component: autophagic vacuole; caveola; cytoplasm; early endosome; endoplasmic reticulum; Golgi apparatus; Golgi membrane; Golgi stack; integral to endoplasmic reticulum membrane; integral to membrane; late endosome; lipid raft; lysosomal membrane; lysosome; mitochondrion; neuron projection; nucleus; plasma membrane; synaptic vesicle; trans-Golgi network Molecular Function: protein binding; unfolded protein binding Biological Process: amino acid metabolic process; amyloid precursor protein catabolic process; arginine transport; associative learning; ceramide metabolic process; cytosolic calcium ion homeostasis; galactosylceramide metabolic process; globoside metabolic process; glucosylceramide metabolic process; ionotropic glutamate receptor signaling pathway; lysosomal lumen acidification; lysosome organization and biogenesis; negative regulation of apoptosis; negative regulation of catalytic activity; negative regulation of macroautophagy; negative regulation of neuron apoptosis; negative regulation of proteolysis; neuromuscular process controlling balance; neurotransmitter metabolic process; protein processing; receptor-mediated endocytosis; regulation of action potential; sphingomyelin metabolic process; vacuolar transport; vesicle transport along microtubule Disease: Ceroid Lipofuscinosis, Neuronal, 3
Research Articles on CLN3	**1.** CLN3 knockdown inhibits cell proliferation and induces G0/G1 cell cycle arrest in the A2780 cell line and its drug-resistant sub-lines.
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