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CTBS Rabbit pAb

Catalog # AP98573

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q01459
Other Accession	Q01459
Reactivity	Mouse
Predicted	Rat, Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43760
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CTBS
Epitope Specificity	1-100/385
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the glycosyl hydrolase 18 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CTBS is an evolutionarily conserved member of the glycosyl hydrolase 18 family of proteins. Localizing to the lysosome, CTBS plays a role in the degradation of asparagine-linked (Asn-linked) glycoproteins. Glycoproteins are translocated to lysosomes via endocytosis or autophagy where they are broken down by proteases and glycosidases. The catabolism of glycoproteins is an important step in the regular turnover of cellular contents and in maintaining the homeostasis of glycosylation. CTBS functions as a glycosidase that cleaves the reducing end GlcNAc from the core chitobiase unit of oligosaccharides. Before this reaction can occur, AGA (the lysosomal glycosylasparaginase) must first remove the Asn from the Asn-linked glycoprotein to expose the reducing end GlcNAc, thereby allowing CTBS to access the exposed moiety.

Additional Information

Gene ID	1486
Other Names	DIAC_HUMAN; CTBS; 3.2.1.-; CTB; chitobiase; chitobiase, di-N-acetyl-; di-N-acetylchitobiase
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CTBS (HGNC:2496)
Synonyms	CTB
Function	Reducing-end exoglycosidase involved in glycan degradation (PubMed:1527079, PubMed:16115860). Hydrolyzes N,N'-diacetylchitobiose (GlnNAc2) and higher chitin-oligosaccharides (GlcNAc(n)) to monomeric GlcNAc acting on reducing-end residues (PubMed:1527079, PubMed:16115860, PubMed:16794344). During N-linked glycoprotein degradation, it cleaves single GlcNAc molecules uniquely from the reducing end of N,N'-diacetylchitobiose units linking oligosaccharides to proteins, and therefore it functions after cleavage of the Asn- GlcNAc bond and asparagine removal by glycosylasparaginase (By similarity).
Cellular Location	Lysosome {ECO:0000250|UniProtKB:Q01460}.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.