



Humanized Anti-Human LC1 Monoclonal antibody, clone D8F5 (CABT-L2416)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	It is a Mouse/Human chimeric monoclonal antibody produced in transgenic mice by replacing the mouse sequence of the heavy chain constant region (IgM, IgG or IgA loci) by the corresponding human sequence. After immunization with the antigen of interest, generated antibody clones are cultivated by standard hybridoma techniques. They consist of the human constant region of the heavy chain, mouse variable region of the heavy chain and mouse light chain. The human constant region of the heavy chain can be directly recognized by the anti-human conjugate, which is used in numerous in vitro diagnostic assays.
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Specificity	This antibody react with human LC1
Target	Human LC1
Isotype	IgG
Source/Host	Humainzed
Species Reactivity	Human
Clone	D8F5
Purification	Purified.Purity>95%
Conjugate	Unconjugated
Applications	IEP, WB
Format	Liquid
Size	1 ea

Buffer	Purified format supplied in 20mM HEPES, pH7.4, 250mM NaCl, 10% Glycerol Supernatant supplied in IMDM, 10% FCS, 1% protein-free stabilizer
Preservative	None
Storage	at -70°C or below. Repeated freeze/thaw cycles should be avoided.

BACKGROUND

Introduction

Autoimmune hepatitis (AIH) is a chronic progressive liver disease of unknown origin that responds well to immunosuppressive therapy, but has a poor prognosis if untreated. Early and accurate diagnosis is therefore of great importance. AIH is characterized by histological features of periportal hepatitis in the absence of viral markers, by hypergammaglobulinemia and, in the majority of patients, by the presence of autoantibodies in serum. Anti-nuclear antibodies (ANA), smooth muscle antibodies (SMA), anti-liver kidney microsomal antibodies (LKM) and antibodies against soluble liver antigen (SLA) are marker autoantibodies for AIH. 52% of AIH patients are positive for ANA and/or SMA, 20% for SLA and 3% for LKM-1. These antibodies are of diagnostic value for AIH but the only autoantibodies highly specific for AIH are SLA. ANA/SMA also occur in 10-15% of patients with viral hepatitis and other immune-mediated diseases. LKM-1 are also associated with hepatitis C. Anti-LKM-1 associated AIH is less prevalent than ANA/SMA/SLA positive AIH and predominantly occurs in girls between 2 and 14 years of age. It has an acute onset with a rapid progression to cirrhosis and liver failure. Anti-liver cytosol type 1 autoantibodies have been reported in association with anti-LKM-1 autoantibodies in 30% of patients with LKM-1 positive AIH. In 10% of cases, anti-LC-1 antibodies are the only liver-related circulating autoantibodies. The antigen recognized by anti-LC1 has been identified as a liver-specific 58 kDa metabolic enzyme named formiminotransferase cyclodeaminase (FTCD). FTCD is a bifunctional protein composed of distinct globular FT and CD domains connected by a short linker. The reactivity of anti-LC-1 autoantibodies is directed against multiple regions of the FTCD, mainly against conformation-sensitive epitopes in the FT region.

Keywords Liver Cytosol Type 1;LC-1;Autoimmune Hepatitis;AIH;LC1

GENE INFORMATION

Synonyms Liver Cytosol Type 1; LC-1; Autoimmune Hepatitis; AIH; LC1