

Recombinant Human FTCD, His-tagged

Cat. No. FTCD-37H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Formiminotransferase Cyclodeaminase (also called liver cytosol type 1) produced in Sf9, is a glycosylated, polypeptide chain having a molecular mass of 59,749 Dalton. The FTCD is expressed with a -6x His tag and purified by proprietary chromatographic techniques.
Species	Human
Source	Sf9 Cells
Description	Formiminotransferase cyclodeaminase is an enzyme which catalyzes the conversion of formiminoglutamate and tetrahydrofolate into formiminotetrahydrofolate and glutamate. Formiminotransferase cyclodeaminase, a bifunctional enzyme of tetrahydrofolate synthesis, is the target antigen of anti-LC1 (liver cytosol antigen type 1) autoantibodies. Presence of LC1 autoantibodies is a marker for type 2 autoimmune hepatitis (for which anti-LKM 1/cytochrome P450 2D6 autoantibodies are a further marker). Serum LC1 autoantibody concentrations appear to fluctuate in parallel with aminotransferase levels, a particularly intriguing observation that suggests a possible role of LC1 autoreactivity in the pathogenic mechanism leading to hepatocyte injury.
Purity	Greater than 95% as determined by SDS-PAGE.
Formulation	FTCD is supplied at a concentration of 0.5 mg/ml in 16mM HEPES buffer pH-7.6, 240 mM sodium chloride, and 20% glycerol.
Immunological	1. Binds IgG-type human auto-antibodies. 2. Standard ELISA test (checker-board

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Functions	analysis of positive/negative sera panels, immuno-dot test).
Applications	Western-Blot with monoclonal anti-hexa-His-tag antibody.and autoimmune hepatitis (AIH II) patient sera.
Coating Concentration	0.35-0.7 µg/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

GENE INFORMATION

Gene Name	FTCD formiminotransferase cyclodeaminase [Homo sapiens]
Synonyms	FTCD; formiminotransferase cyclodeaminase; LCHC1;EC=2.1.2.5;EC=4.3.1.4; Formimidoyltransferase-cyclodeaminase; Glutamate formimidoyltransferase; Glutamate formiminotransferase; Glutamate formyltransferase; Formimidoyltetrahydrofolate cyclodeaminase; human formiminotransferase cyclodeaminase, EC 4.3.1.4; OTTHUMP00000115563
Gene ID	10841
mRNA Refseq	NM_006657
Protein Refseq	NP_006648
MIM	606806
UniProt ID	O95954

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Chromosome Location	21q22.3
Pathway	Histidine metabolism; Metabolic pathways; One carbon pool by folate; Metabolism of amino acids
Function	folic acid binding; formimidoyltetrahydrofolate cyclodeaminase activity; glutamate formimidoyltransferase activity; lyase activity; transferase activity

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