

LC-1 Antigen - Product Datasheet

Product information:

Product Name:	LC-1 antigen
Alternative names:	Liver Cytosol type 1 antigen; formiminotransferase cyclodeaminase; FTCD
Description:	Full length human sequence FTCD enzyme (isoform A) with hexa-Histidine tag
Source Material:	Recombinant human protein expressed in <i>Spodoptera frugiperda</i> Sf21 insect cells
Purification:	Purified using conventional chromatography procedures
Purity:	>90% pure (by SDS-PAGE)
Appearance:	Clear colourless solution

Antigen Overview:

LC-1 is a marker for autoimmune hepatitis (AIH) type II and antibodies against LC-1 are found to be detected in up to 50% of cases. Immunofluorescence of LC-1 is often not identified due to the brightness of LKM-1 obscuring accurate visualisation. Some occurrences of anti-LC-1 in conjunction with antinuclear antibodies (ANA) and smooth muscle antibodies (SMA) in patients with chronic hepatitis C and autoimmune hepatitis, is known. Some case studies have shown that anti-LC-1 is found as the only serological marker in patients with AIH type II.

The antigen recognised by LC-1 antibodies has been identified as formiminotransferase cyclodeaminase (FTCD). FTCD is a bifunctional enzyme which consists of 8 identical molecular subunits of 60 kDa each arranged in a circular tetramer of dimers. FTCD catalyses two independent but sequential reactions in the histidine degradation pathway in the mammalian liver. Each subunit consists of an N-terminal transferase active domain and a C-terminal deaminase active domain. The dimers are responsible for the separate activities of both the transferase and deaminase activity.

Ordering Information:

ATL04-02 - LC-1 antigen (recombinant) - 0.20 mg
ATL04-10 - LC-1 antigen (recombinant) - 1.0 mg
Custom pack sizes available on request

Storage Conditions & Handling:

Store at -65°C or below
Avoid repeated freezing and thawing
Storage buffer contains 20% Glycerol as cryoprotectant
Mix before use and keep on ice

Applications:

After coating onto ELISA plates the product will bind auto antibodies to LC-1; recommended starting ELISA coating concentration 0.2 µg/well
Positive on Western Blot using sample with auto antibodies to LC-1 (e.g. patient serum), antibodies against FTCD or hexa-Histidine tag

Product Profile:

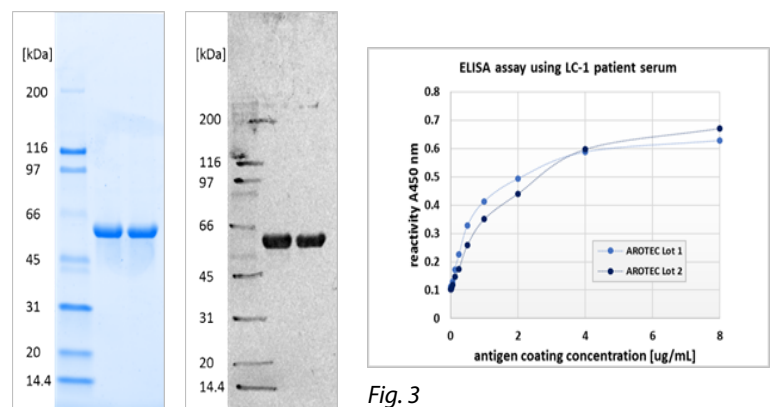


Fig. 1

Fig. 2

Fig. 3

Fig. 1. SDS PAGE of ATL04 LC-1 antigen; Coomassie stained; 2µg/lane

Fig. 2. Western Blot of ATL04 LC-1 antigen with LC-1 patient serum (1:300 dilution). Colorimetric detection

Fig. 3. ELISA titration assay of ATL04 LC-1 antigen using LC-1 patient serum (1:100 dilution)

References:

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