APA842Hu01 10μg
Active Lipoprotein, a (Lpa)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Asp1719~Arg2038
Tags: N-terminal His-tag
Purity: >99%
Endotoxin Level: <1.0EU per 1mL (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% sarcosyl and 5% trehalose.
Original Concentration: 80μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.4
Predicted Molecular Mass: 39.1kDa
Accurate Molecular Mass: 39kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH_2O to a concentration of 0-0.08 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8^oC for one month.
Aliquot and store at -80^oC for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

DC MFGNGKGYRG KKATTVTGTP CQEWAAQEPH
RHSTFIPGTN KWAGLEKNYC RNPDGDINGP WCYTMNPRKL FDYCDIPLCA
SSSFDCGKPQ VEPKKCPGSI VGGCVAHPHS WPWQVSLRTR FGKHFCGGTL
ISPEWVLTAA HCLKKSSRPS SYKVILGAHQ EVNLESHVQE IEVSRLFLEP
TQADIALLKL SRPAVITDKV MPACLPSPDY MVTARTECYI TGWGETQGTF
GTGLLKEAQL LVIENEVCNH YKYICAEHLA RGTDSCQGDS GGPLVCFEKD
KYILQGVTSW GLGCARPNKP GVYARVSRFV TWIEGMMR

[ACTIVITY]

Lipoprotein, a (Lpa) is a lipoprotein subclass. Lpa is assembled at the hepatocyte cell membrane surface, while other scenarios exist with regard to the location of assembly. It mainly exists in plasma. Lpa contributes to the process of atherogenesis. It also may enhance coagulation by inhibiting the function of tissue factor pathway inhibitor. Lpa carries cholesterol and binds atherogenic proinflammatory oxidized phospholipids as a preferential carrier of oxidized phospholipids in human plasma, which attract inflammatory cells to vessel walls and leads to smooth muscle cell proliferation. Moreover, Lpa also is hypothesized to be involved in wound healing and tissue repair, interacting with components of the vascular wall and extra cellular matrix. Besides, Fibronectin (FN) has been identified as an interactor of Lpa, thus a binding ELISA assay was conducted to detect the interaction of recombinant human Lpa and recombinant human FN. Briefly, Lpa were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to FN-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with

anti-Lpa pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of Lpa and FN was shown in Figure 1, and this effect was in a dose dependent manner.

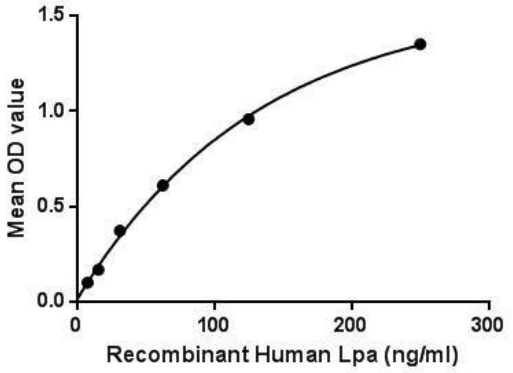

Figure 1. The binding activity of Lpa with FN.

[IDENTIFICATION]

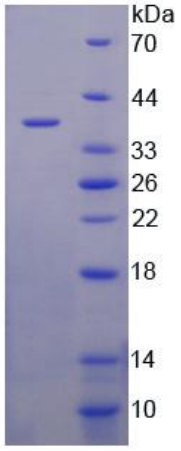

Figure 2. SDS-PAGE

Sample: Active recombinant Lpa, Human

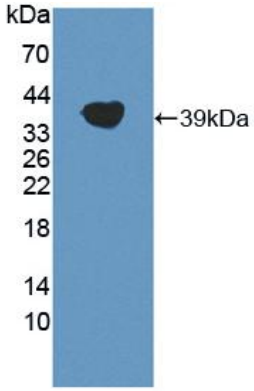

Figure 3. Western Blot

Sample: Recombinant Lpa, Human;

Antibody: Rabbit Anti-Human Lpa Ab (PAA842Hu01)

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.