

APA817Hu01 100µg

Active Haptoglobin (Hpt)

Organism Species: *Homo sapiens* (Human)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Val44~Asp157

Tags: N-terminal His-tag

Purity: >90%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .

Original Concentration: 200µg/mL

Applications: Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 8.5

Predicted Molecular Mass: 14.1kDa

Accurate Molecular Mass: 15kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

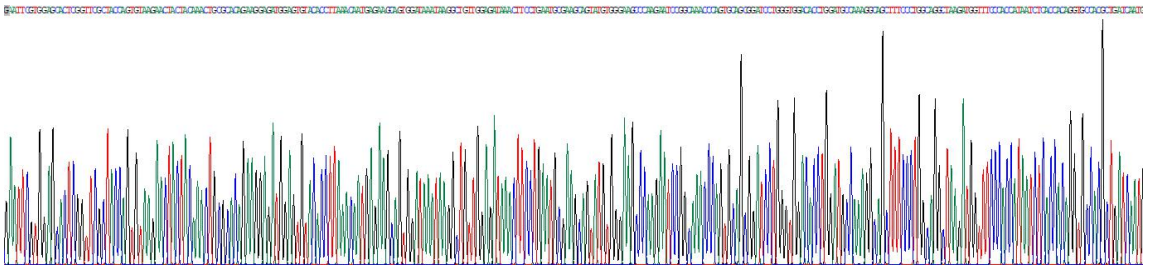
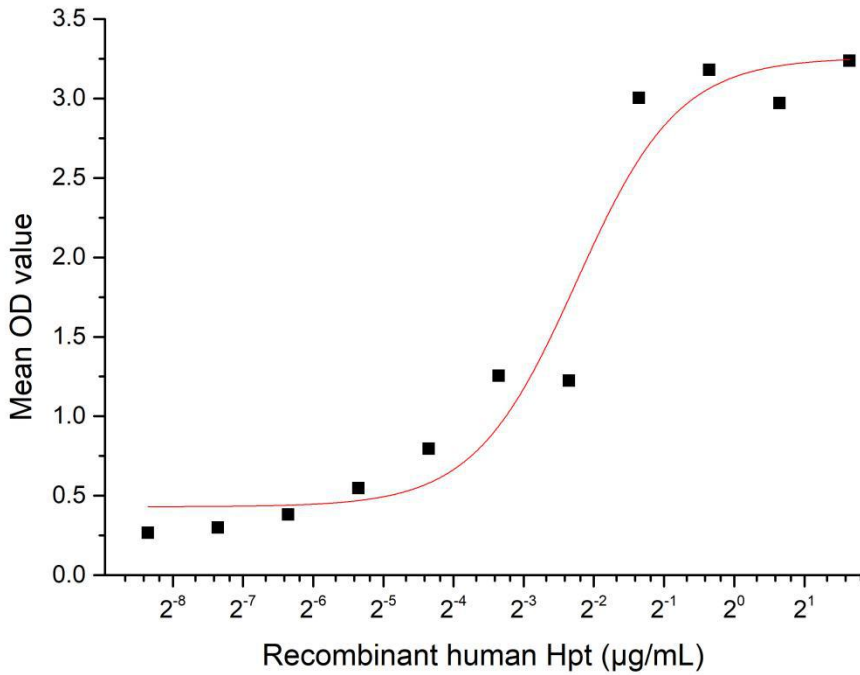
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date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

[SEQUENCE]

VEHSVRY
QCKNYYKLRT EGDGVYTLNN EKQWINKAVG DKLPECEAVC GKPKNPANPV
QRILGGHLDA KGSFPWQAKM VSHHNLTTGA TLINEQWLLT TAKNLFNLHS
ENATAKD

[ACTIVITY]

Haptoglobin (Hpt) a secreted acute-phase glycoprotein mainly produced by hepatocytes. Composed of α and β polypeptide chains connected by disulfide bonds, Hpt circulates widely in plasma. Its canonical function is sequestering free hemoglobin from hemolysis to block oxidative stress and avoid kidney damage. Moreover, Hpt participates in immune response regulation, inflammation control and lipid metabolism. Its expression rises rapidly under infection or tissue injury, making it a routine clinical inflammatory indicator. Different Hpt isoforms differ in antioxidant capacity and are closely linked to metabolic and cardiovascular illnesses. Hpt interacts with PANX1 to regulate channel function and facilitate intercellular inflammatory signal communication. Thus a functional ELISA assay was conducted to detect the interaction of recombinant human Hpt and recombinant human PANX1. Briefly, Hpt was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ L were then transferred to PANX1-coated microtiter wells and incubated for 1h at 37 °C . Wells were washed with PBST and incubated for 1h with anti-Hpt pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C , wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C . Finally, add 50 μ L stop solution to the wells



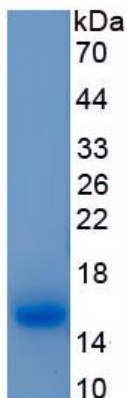


Figure 3. SDS-PAGE

Sample: Active recombinant Hpt, Human

[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.