APM983Hu01 100μg
Active Uracil Phosphoribosyltransferase (UPRT)
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: Asn75~Ala297
Tags: N-terminal His and GST Tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.2
Predicted Molecular Mass: 54.7kDa
Accurate Molecular Mass: 55kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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]

NSEGNS GSGDSSSYDA PAGNSFLEDC ELSRQIGAQL KLLPMNDQIR
ELQTIIRDKT ASRGDFMFSA DRLIRLVVEE GLNQLPYKEC MVTTPTGYKY EGVKFEKGNC
GVSIMRSGEA MEQGLRDCCR SIRIGKILIQ SDEETQRAKV YYAKFPPDIY RRKVLLMYPI
LSTGNTVIEA VKVLIEHGVQ PSVIILLSLF STPHGAKSII QEFPEITILT TEVHPVA

[ACTIVITY]

Uracil Phosphoribosyltransferase (UPRT) is an important enzyme involved in the pyrimidine salvage pathway, which is a critical metabolic pathway for the synthesis of nucleotides in various organisms, including humans. This enzyme plays a key role in the conversion of uracil, a pyrimidine base, into uridine-5'-phosphate (UMP), a precursor for the synthesis of RNA and DNA. Besides, Purine Nucleoside Phosphorylase (PNP) has been identified as an interactor of UPRT, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human UPRT and recombinant mouse PNP. Briefly, UPRT was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to PNP-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-UPRT pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human UPRT and recombinant mouse PNP was shown in Figure 1, the EC50 for this effect is 0.017 ug/mL.

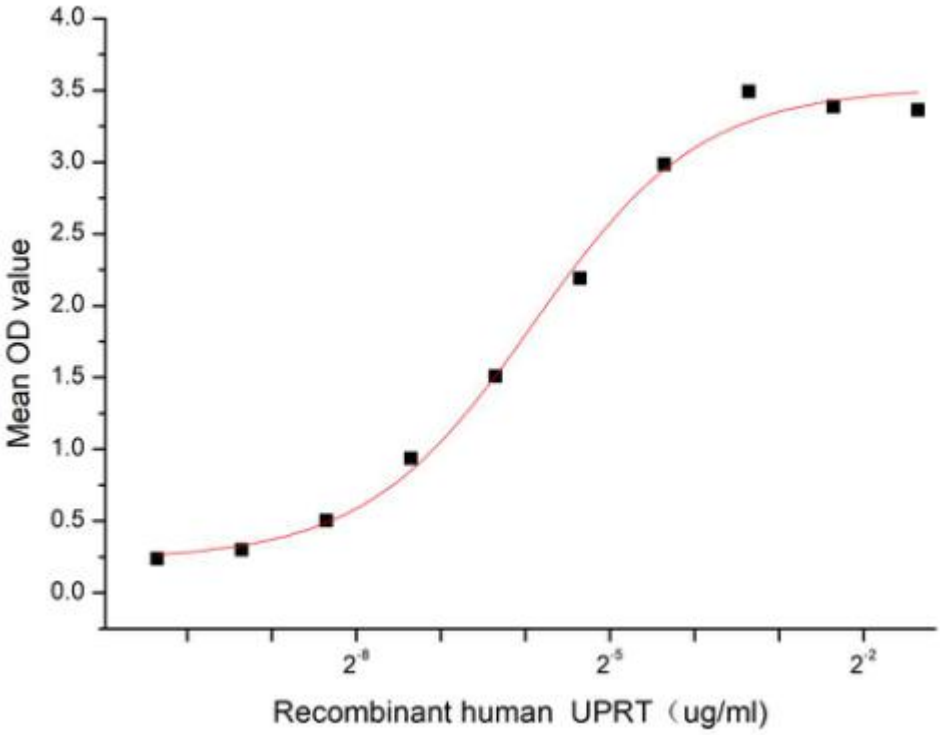

Figure 1. The binding activity of recombinant human UPRT and recombinant mouse PNP

[IDENTIFICATION]

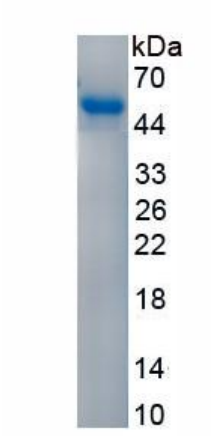

Figure 2. SDS-PAGE

Sample: Active recombinant UPRT, 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.