APA717Hu01 100μg
Active Hypoxanthine Phosphoribosyltransferase 1 (HPRT1)
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: Thr3~Ala218
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% 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: 6.2
Predicted Molecular Mass: 57.3kDa
Accurate Molecular Mass: 57kDa 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]

TRSPGVVISDDEPGYDLDLFCIPNHYAEDLERVFIPHGLIMDRTERLARDVMKEMGGHHIV
ALCVLKGGYKFFADLLDYIKALNRNSDRSIPMTVDFIRLKSYCNDQSTGDIKVIGGDDLSTLT
GKNVLIVEDIIDTGKTMQTLLSLVRQYNPKMVKVASLLVKRTPRSVGYKPDFVGFEIPDKFV
VGYALDYNEYFRDLNHVCVISETGKAKYKA

[ACTIVITY]

Hypoxanthine Phosphoribosyltransferase 1 (HPRT1) is an enzyme central to the purine salvage pathway. It utilizes phosphoribosylpyrophosphate (PRPP) to transform hypoxanthine into inosine monophosphate (IMP) and guanine into guanosine monophosphate (GMP). APRT, on the other hand, catalyzes the conversion of adenine to adenosine monophosphate (AMP) also with PRPP. When HPRT1 and APRT interact, they can potentially co - ordinate the utilization of PRPP.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human HPRT1 and recombinant human APRT. Briefly, HPRT1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to APRT-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-HPRT1 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 450/630nm immediately. The binding activity of recombinant human HPRT1 and recombinant human APRT was shown in Figure 1, the EC50 for this effect is 0.092ug/mL.

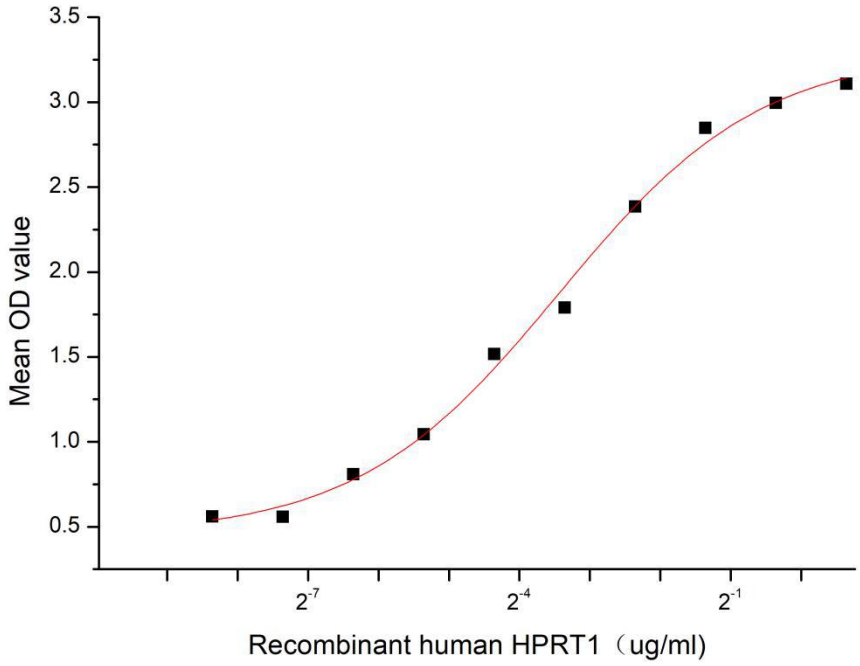

Figure 1. The binding activity of recombinant human HPRT1 and human APRT

[IDENTIFICATION]

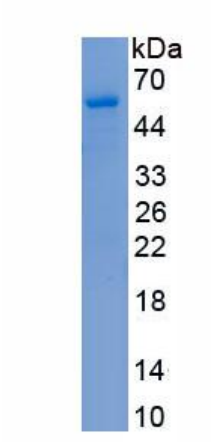

Figure 2. SDS-PAGE

Sample: Active recombinant HPRT1, 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.