

Uracil Phosphoribosyltransferase (UPRT) Active Protein | UPRT active protein

Active Uracil Phosphoribosyltransferase (UPRT)

CATALOG # AAA161941	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Uracil Phosphoribosyltransferase (UPRT); Active Uracil Phosphoribosyltransferase (UPRT); Uracil Phosphoribosyltransferase; FUR14; UPRT active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Asn75~Ala2 97
Applicable Applications for UPRT active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His and GST Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6.2
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

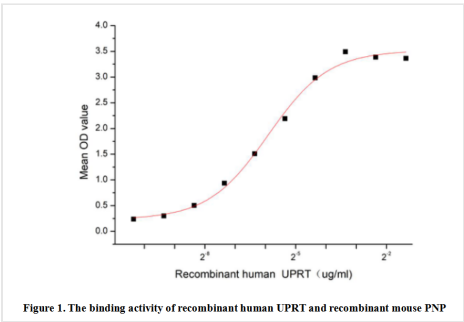
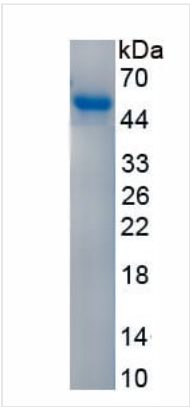


Figure 1. The binding activity of recombinant human UPRT and recombinant mouse PNP



SDS-PAGE
Figure. SDS-PAGE

Bioactivity

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 ul were then transferred to PNP-coated microtiter wells and incubated for 1h at 37 degree C. 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 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL 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.

ADDITIONAL INFORMATION

Product Categories/Family for UPRT active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	21450816
NCBI GeneID	139596
NCBI Accession #	NP_659489
NCBI GenBank Nucleotide #	NM_145052.3
UniProt Accession #	Q96BW1; Q5JRL1; Q5JRL3; Q68DN0; Q96MW2
Molecular Weight	36.2 kDa (332aa) confirmed by MALDI-TOF
NCBI Official Full Name	uracil phosphoribosyltransferase homolog isoform 1
NCBI Official Synonym Full Names	uracil phosphoribosyltransferase homolog
NCBI Official Symbol	UPRT
NCBI Official Synonym Symbols	UPP; FUR1
NCBI Protein Information	uracil phosphoribosyltransferase homolog
UniProt Protein Name	Uracil phosphoribosyltransferase homolog
UniProt Gene Name	UPRT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.