APD294Hu01 100μg
Active Cytochrome P450 1A2 (CYP1A2)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ala2~Ser231
Tags: Two N-terminal Tags, His-tag and GST-tag
Purity: >95%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.0
Predicted Molecular Mass: 55.2kDa
Accurate Molecular Mass: 55kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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]

ALSQSVPFS ATELLLASAI FCLVFWVLKG LRPRVPKGLK SPPEPWGWPL
LGHVLTLGKN PHLALSRMSQ RYGDVLQIRI GSTPVLVLSR LDTIRQALVR
QGDDFKGRPD LYTSTLITDG QSLTFSTDSG PVWAARRRLA QNALNTFSIA
SDPASSSSCY LEEHVSKEAK ALISRLQELM AGPGHFDPYN QVVVSVANVI
GAMCFGQHFP ESSDEMLSLV KNTHEFVETA S

[ACTIVITY]

CYP1A2 (Cytochrome P450 1A2) belongs to the group of proteins which contains heme as a cofactor. CYP1A2 oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. Besides, ASAH1 (Acid ceramidase) has been identified as an interactor of CYP1A2 through affinity capture-MS. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human CYP1A2 and recombinant human ASAH1. Briefly, CYP1A2 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to ASAH1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CYP1A2 mAb, 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 CYP1A2 and ASAH1 was shown in Figure 1, and this effect was in a dose dependent manner.

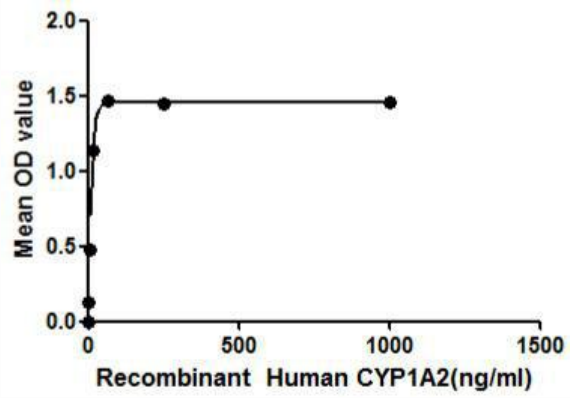

Figure 1. The binding activity of CYP1A2 with ASAH1.

[IDENTIFICATION]

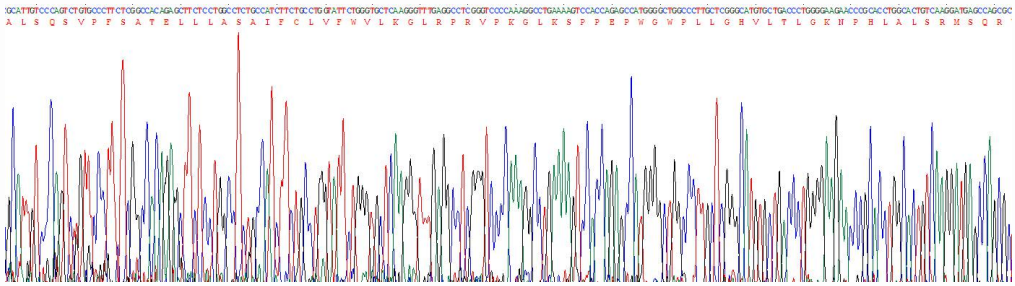

Figure 2. Gene Sequencing (extract)

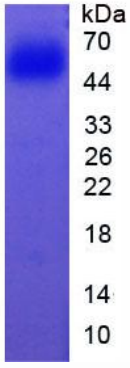

Figure 3. SDS-PAGE

Sample: Active recombinant CYP1A2, Human

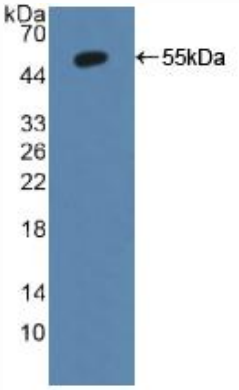

Figure 4. Western Blot

Sample: Recombinant CYP1A2, Human;

Antibody: Rabbit Anti-Human CYP1A2 Ab (PAD294Hu01)