APA663Hu02 100μg
Active Toll Like Receptor 2 (TLR2)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Phe644~Ser784
Tags: N-terminal His-tag
Purity: >95%
Traits: Freeze-dried powder
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: 5.8
Predicted Molecular Mass: 23.6kDa
Accurate Molecular Mass: 26kDa 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]

FVSYSER
DAYWVENLMV QELENFNPPF KLCLHKRDFI PGKWIIDNII DSIEKSHKTV
FVLSENFVKS EWCKYELDFS HFRLFDENND AAILILLEPI EKKAIPQRFC
KLRKIMNTKT YLEWPMDEAQ REGFWVNLRA AIKS

[ACTIVITY]

TLR2 is a member of TLR family which is type I transmembrane proteins with a large number of extracellular leucine-rich repeats (LRRs) and a cytoplasmic Toll/IL-1 receptor (TIR) domain. Human TLR2 is synthesized as a 784 amino acid precursor that contains a signal sequence (aa 1-18), an extracellular domain (aa 19-588) with approximately 20 LRRs, a transmembrane segment (aa 589-609), and a cytoplasmic TIR domain (aa 610-784). The receptor is expressed on a number of cell types including monocytes, dendritic cells, neutrophils, B cells endothelial cells, and hepatocytes. TLR2 functions as part of a heterodimeric complex with either TLR1 or TLR6, and possibly other co-receptors. These complexes recognize lipoproteins and glycolipids from gram-positive and gram-negative bacteria as well as mycoplasma and yeast. TLR2/TLR1 heterodimers bind triacylated lipopeptides, while the TLR2/TLR6 heterodimer preferentially recognizes diacylated lipopeptides. A functional binding ELISA assay was conducted to detect the interaction of recombinant human TLR2 and

recombinant human TLR1. Briefly, TLR2 were diluted serially in PBS, with 0.01% BSA (pH7.4). Duplicate samples of 100 µl were then transferred to TLR1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-TLR2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 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 450 nm immediately. The binding activity of TLR2 and TLR1 was shown in Figure 1, and this effect was in a dose dependent manner, the EC50 was 0.21 ug/ml.

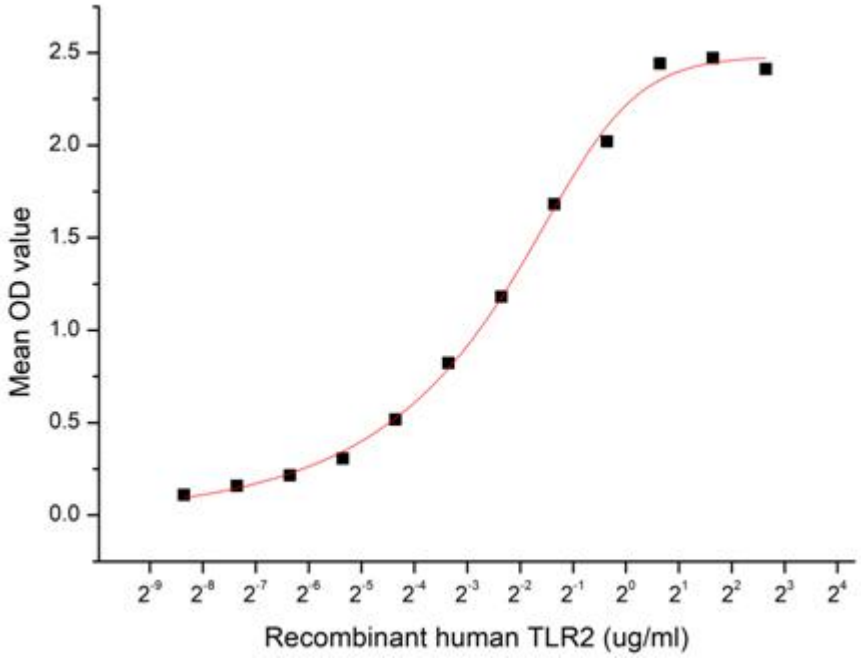

Figure 1. The binding activity of TLR2 with TLR1

[IDENTIFICATION]

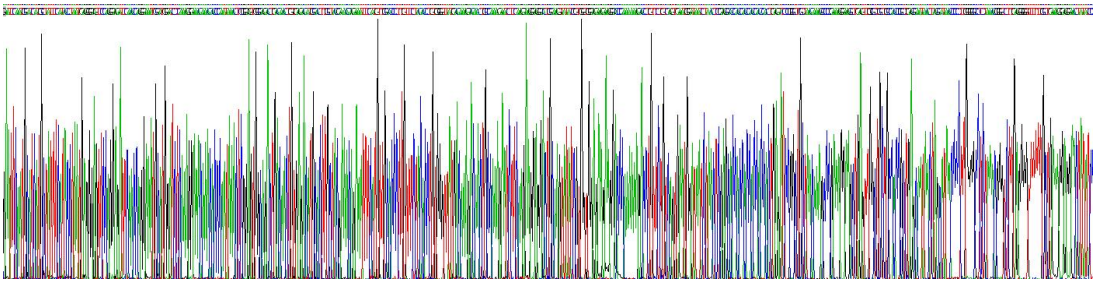

Figure 2. Gene Sequencing (extract)

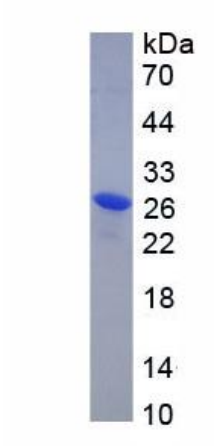

Figure 3. SDS-PAGE

Sample: Active recombinant TLR2, 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.