

APN056Hu61 100µg

Active T-Cell Immunoreceptor With Ig And ITIM Domains Protein (TIGIT)

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: Eukaryotic expression.

Host: 293F cell

Residues: Met22~Pro141

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 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: 4.5

Predicted Molecular Mass: 14.7kDa

Accurate Molecular Mass: 18kDa 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]

MMTGTIETTGNISAEKGGSIILQCHLSSTTAQVTQVNWEEQQDQLLAICNADLGHWHISPSFKDRVAPGPGGLGLTLQSLTVNDTGEYFCI
YHTYPDGTYTGRIFLEVLESSVAEHGARFQIP

[ACTIVITY]

T cell immunoreceptor with Ig and ITIM domains (TIGIT) is an inhibitory receptor expressed on several types of lymphocytes. TIGIT is expressed on NK cells and subsets of activated, memory and regulatory T cells, and particularly on follicular helper T cells within secondary lymphoid organs. Human TIGIT cDNA encodes 244 amino acids (aa) including a 21 aa signal sequence, a 120 aa extracellular region with a V-type Ig-like domain and two potential N-glycosylation site, a 21 aa transmembrane sequence, and an 82 aa cytoplasmic domain with an ITIM motif. A 170 aa variant diverges after aa 166. Lymphocyte Activation Gene 3 (LAG3) and TIGIT are two potential targets for cancer immunotherapy, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human TIGIT and recombinant human LAG3. Briefly, biotin-linked TIGIT were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to LAG3-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C. Finally, add 50 μ l stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human TIGIT and recombinant human LAG3 was shown in Figure 1, the EC50 for this effect is 0.11 ug/mL.

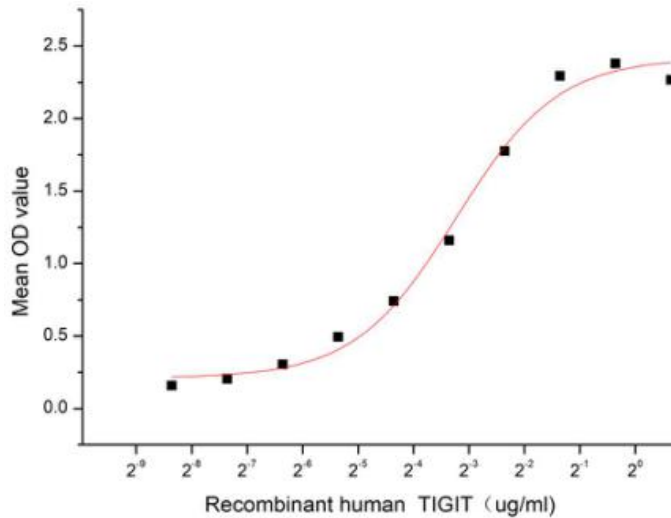


Figure 1. The binding activity of recombinant human TIGIT and recombinant human LAG3

[IDENTIFICATION]

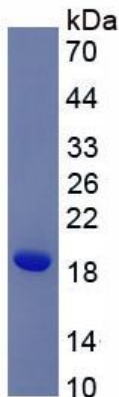


Figure 2. SDS-PAGE

Sample: Active recombinant TIGIT, 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.