

**APB939Hu01 10µg**

**Active Syndecan 4 (SDC4)**

**Organism Species: *Homo sapiens* (Human)**

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Ala18~Glu145

**Tags:** N-terminal His-tag

**Purity:** >95%

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

**Buffer Formulation:** PBS, pH7.4, containing 0.01% SKL, 5% Trehalose .

**Original Concentration:** 600µg/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:** 17.6kDa

**Accurate Molecular Mass:** 24kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## **[ 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.

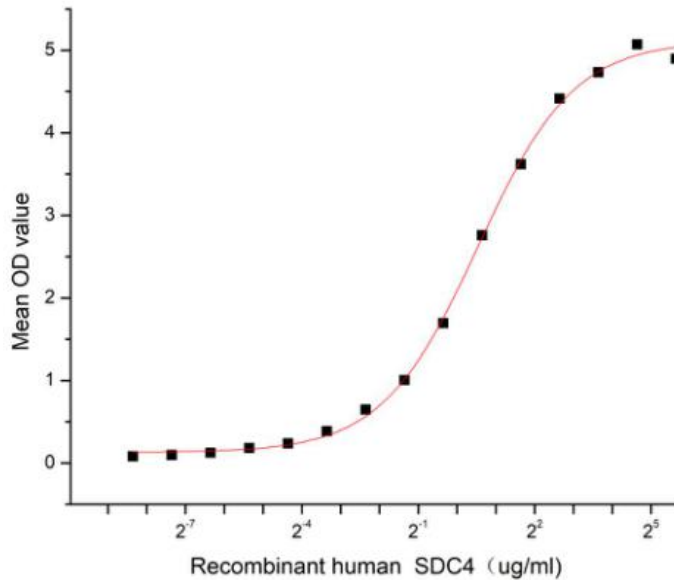
## **[ SEQUENCE ]**

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AES IRETEVIDPQ DLLEGRYFSG ALPDEDVVG  
PGQESDDFEL SGSGDLDDLE DSMIGPEVVH PLVPLDNHIP ERAGSGSQVP  
TEPKKLEENE VIPKRISPVE ESEDVSNKVS MSSTVQGSNI FERTE
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## **[ ACTIVITY ]**

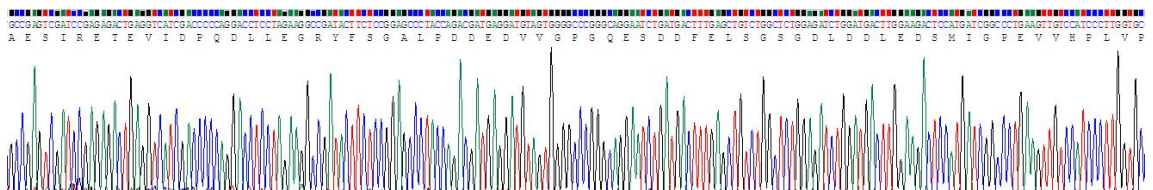
Syndecan-4 (SDC4), a transmembrane proteoglycan bearing heparan sulfate chains, is an important member of SDCs family. SDC4 is expressed on dendritic cells (DCs) and activated T cells, plays a crucial role in DC motility and has been shown as a potential target for activated T-cell-driven diseases. SDC4 is involved in numerous inside-out and outside-in signaling processes, such as binding and sequestration of growth factors and extracellular matrix components, regulation of the activity of the small GTPase Rac1, protein kinase C-alpha, the level of intracellular calcium, or the phosphorylation of focal adhesion kinase. A functional binding ELISA assay was conducted to detect the interaction of recombinant human Fibroblast Growth Factor 2, Basic (FGF2) and recombinant human SDC4. Briefly, biotin-linked SDC4 were diluted serially in PBS, with 0.01% BSA (pH 7.4).

Duplicate samples of 100 ul were then transferred to FGF2-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 50µl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human SDC4 and recombinant human FGF2 was shown in Figure 1, the EC50 for this effect is 1.45 ug/mL.

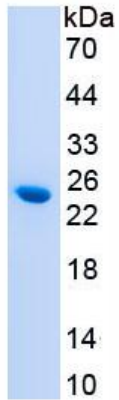


**Figure 1. The binding activity of recombinant human SDC4 and recombinant human FGF2**

**[ IDENTIFICATION ]**



**Figure 2. Gene Sequencing (extract)**



**Figure 3. SDS-PAGE**

**Sample: Active recombinant SDC4, 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.