Active Signal Transducer And Activator Of Transcription 3 (STAT3) Instruction Manual

SBPB267Hu01

Homo sapiens (Human)

Buffer Formulation 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

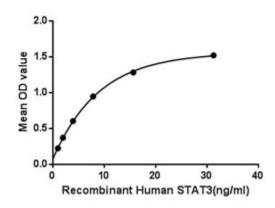
Freeze-dried powder

Purity > 95% Isoelectric Point 6.3

Applications Cell culture; Activity Assays.

ACTIVITY TEST

Traits



Signal transducer and activator of transcription 3 (STAT3) is a member of the STAT protein family. STAT3 mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. STAT3 is phosphorylated by receptor-associated Janus kinases (JAK), form homo- or heterodimers, and translocate to the cell nucleus where they act as transcription activators. Besides, Epidermal Growth Factor Receptor 2 (EGFR2) has been identified as an interactor of STAT3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human STAT3 and recombinant human EGFR2. Briefly, STAT3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to EGFR2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-STAT3 pAb, 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°C. Finally, add 50μ L stop solution to the wells and read at 450nm immediately. The binding activity of STAT3 and EGFR2 was shown in Figure 1, and this effect was in a dose dependent manner.

Figure. The binding activity of STAT3 with EGFR2

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

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.

Image

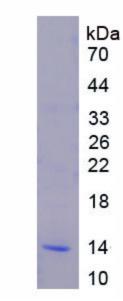


Figure. SDS-PAGE

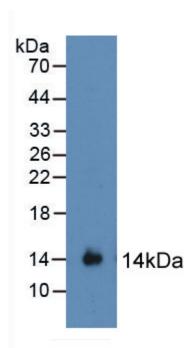


Figure. Western Blot

[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.