

APF466Mu01 100µg
Active Centaurin Alpha 2 (CENTa2)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Ser49~Ser361

Tags: N-terminal His-tag

Purity: >90%

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: Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 10.0

Predicted Molecular Mass: 38.1kDa

Accurate Molecular Mass: 40kDa 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]

SGVHRNFPDISKVKSVRLDFWDDSMVEFMTHHGNLNVKAKFEARVPAFYYPQANDCLVLKE
QWIRAKYERQEFTAIDKAVSHPGNREGFLWKRGRDNAQFLRRRFVLLSREGLLKYYTKEEGKAP
KAVISIKDLNATFQTEKIGHPHGLQITYRKEGHRNLFVYHDSGKEIVDFWALRAARLQYLKLA
FPDLPESELVPLITRNYLKQGFMEKTGPKHREPFKKRWFDLPQERRLLYYKNPLDAFELGQVFL
GSNEQGYEVWEDLPKGIRGNRWKAGLTVITPERKFIFTCPTKEQREWLESIRGVLS

[ACTIVITY]

Centaurin Alpha 2 (CENTa2) is a member of the Centaurin family of proteins, which are characterized by their unique structure and function in intracellular signaling and endosomal trafficking. It plays a role in various cellular processes by interacting with other molecules and is implicated in the regulation of cell growth, migration, and differentiation.

Besides, Neurofibromin 1 (NF1) has been identified as an interactor of CENTa2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse CENTa2 and recombinant human NF1. Briefly, CENTa2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to NF1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CENTa2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, 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 450/630nm immediately. The binding activity of recombinant mouse CENTa2 and recombinant human NF1 was shown in Figure 1, the EC50 for this effect is 2.96ug/mL.

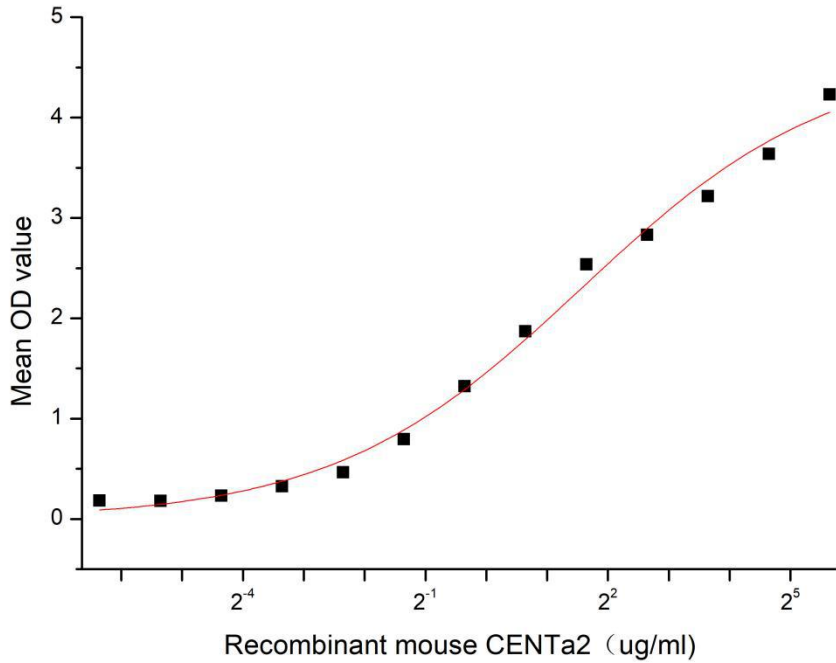


Figure 1. The binding activity of recombinant mouse CENTa2 and recombinant human NF1

[IDENTIFICATION]

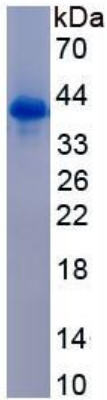


Figure 2. SDS-PAGE

Sample: Active recombinant CENTa2, Mouse

[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.