

APP967Hu01 100µg
Active Homeobox Protein A11 (HOXA11)
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: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Leu313

Tags: N-terminal His-tag

Purity: >80%

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

Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 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: 8.9

Predicted Molecular Mass: 38.2kDa

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]

MDFDERGPCSSNMYLPCTYYVSGPDFSSLPSFLPQTPSSRPMTYSYSSNLPQ
VQPVREVTFREYAIEPATKWHPRGNLAHCYSAEELVHRDCLQAPSAAGVPGD
VLAKSSANVYHHPTPAVSSNFYSTVGRNGVLPQAFDQFFETAYGTPENLASSD
YPGDKSAEKGPAAATATSAAAAAATGAPATSSSDSGGGGGCREAAAAEKE
RRRRPESSSSPESSSGHTEDKAGGSSGQRTRKKRCPYTKYQIRELEREFFFSVYI
NKEKRLQLSRMLNLTDRQVKIWFQNRMMKEKKINRDLQYYSANPLL

[ACTIVITY]

The HOXA11 protein is a transcription factor encoded by the HOXA11 gene, a member of the HOXA gene cluster in the homeobox gene family. The core structure of HOXA11 protein is the homologous domain, which is composed of about 60 amino acids. HOXA11 plays an integral role in the normal development of the urogenital system and precisely regulates the morphogenesis of the forearm and wrist during limb development. In addition, it is involved in the regulation of cell differentiation, proliferation and apoptosis. Forkhead Box Protein O1 (FOXO1) has been identified as an interactor of HOXA11, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human HOXA11 and recombinant mouse FOXO1. Briefly, biotin-linked HOXA11 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to FOXO1-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 450nm immediately. The binding activity of HOXA11 and FOXO1

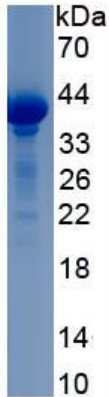


Figure 3. SDS-PAGE

Sample: Active recombinant HOXA11, 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.