APA427Hu01 100μg
Active Growth Differentiation Factor 9 (GDF9)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Gly320~Arg454
Tags: N-terminal His-tag
Purity: >92%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.1
Predicted Molecular Mass: 16.8kDa
Accurate Molecular Mass: 18kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

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

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

G QETVSSELKK PLGPASFNLS EYFRQFLLPQ NECELHDFRL SFSQLKWDNW IVAPHRYNPR YCKGDCPRAV GHRYGSPVHT MVQNIIYEKL DSSVPRPSCV PAKYSPLSVL TIEPDGSIAY KEYEDMIATK CTCR

[ACTIVITY]

GDF9 (Growth/differentiation factor 9) is an oocyte derived growth factora which belongs to the transforming growth factor-beta (TGFβ) superfamily. GDF9 is required for ovarian folliculogenesis and promotes primordial follicle development. S100A8 has been identified as an interactor of GDF9 through two-hybrid assay, thus a binding ELISA assay was conducted to detect the interaction of recombinant human GDF9 and recombinant human S100A8. Briefly, GDF9 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to S100A8-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-GDF9 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of of GDF9 and S100A8 was shown in Figure 1, and this effect was in a dose dependent manner.

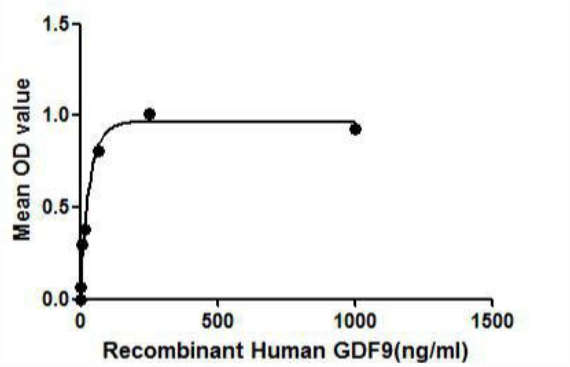

Figure 1. The binding activity of GDF9 with S100A8.

[IDENTIFICATION]

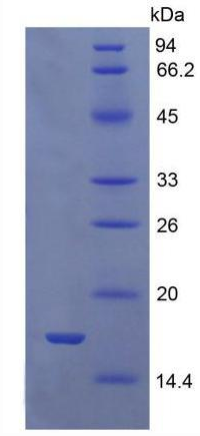

Figure 2. SDS-PAGE

Sample: Active recombinant GDF9, Human

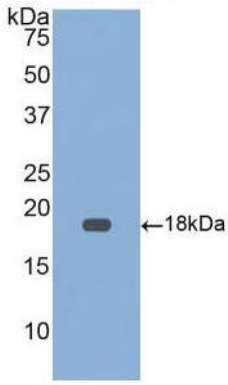

Figure 3. Western Blot

Sample: Recombinant GDF9, Human;

Antibody: Rabbit Anti-Human GDF9 Ab (PAA427Hu01)