**APG444Mu01 100μg**
**Active Dipeptidyl Peptidase 9 (DPP9)**
**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:** Val505~Leu862
**Tags:** N-terminal His and GST Tag
**Purity:** >90%
**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:** 6.3
**Predicted Molecular Mass:** 70.7kDa
**Accurate Molecular Mass:** 71kDa 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 2-8ºC 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 ]

VNEQTK LVYFQGTKDT PLEHHLYVVS YESAGEIVRL TTLGFSHSCS
MSQSFDMFVS HYSSVSTPPC VHVYKLSGPD DDPLHKQPRF WASMMEAANC
PPDYVPPEIF HFHTRADVQL YGMIYKPHTL QPGRKHPTVL FVYGGPQVQL
VNNSFKGIKY LRLNTLASLG YAVVVIDGRG SCQRGLHFEG ALKNQMGQVE
IEDQVEGLQY VAEKYGFIDL SRVAIHGWSY GGFLSLMGLI HKPQVFKVAI
AGAPVTVWMA YDTGYTERYM DVPENNQQGY EAGSVALHVE KLPNEPNRLL
ILHGFLDENV HFFHTNFLVS QLIRAGKPYQ LQIYPNERHS IRCRESGEHY
EVTLLHFLQE HL

## [ ACTIVITY ]

Dipeptidyl Peptidase 9 (DPP9) is a cytosolic serine protease that cleaves N-terminal dipeptides from substrates, regulating immune responses, cell survival, and energy metabolism. As a member of the DPP4 family, it modulates inflammatory signaling and plays roles in cancer progression and metabolic disorders. DPP9's inhibition of NLRP1 inflammasome activation highlights its importance in immune regulation. DPP9 has been reported to interact with HRAS, potentially influencing MAPK/ERK signaling, though its precise role in RAS-driven tumorigenesis requires further investigationThus a functional ELISA assay was conducted to detect the interaction of recombinant mouse DPP9 and recombinant human HRAS. Briefly, DPP9 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to HRAS-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-DPP9 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and

washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant mouse DPP9 and recombinant human HRAS was shown in Figure 1, the EC50 for this effect is 0.06ug/mL.

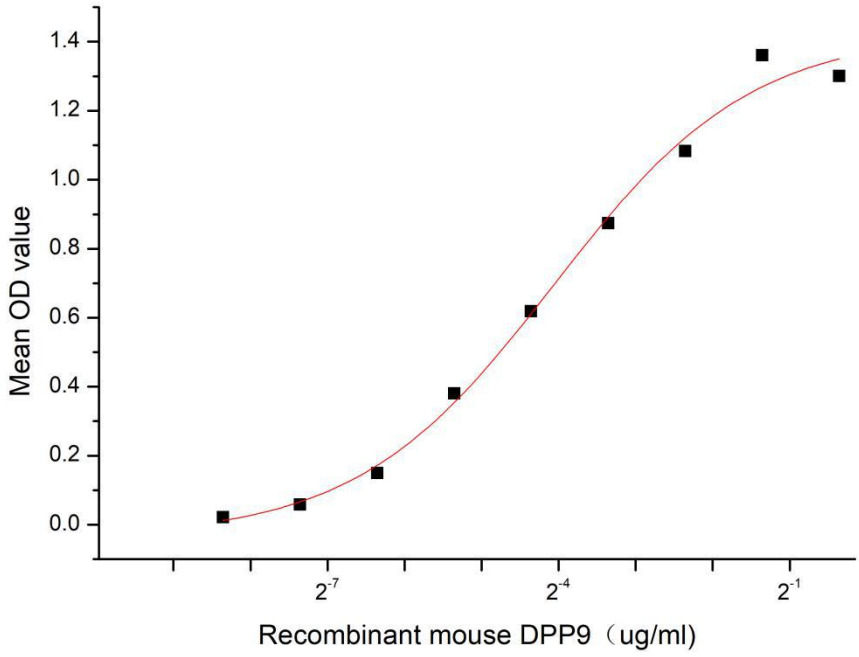


**Figure 1. The binding activity of recombinant mouse DPP9 and recombinant human HRAS**

# [ IDENTIFICATION ]

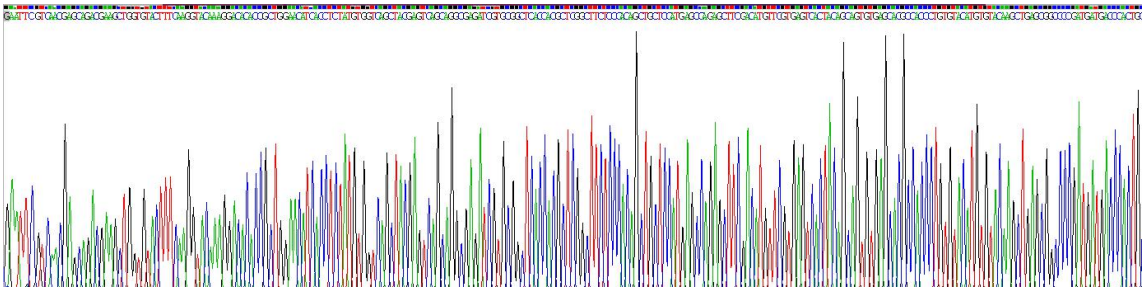

**Figure 2. Gene Sequencing (extract)**

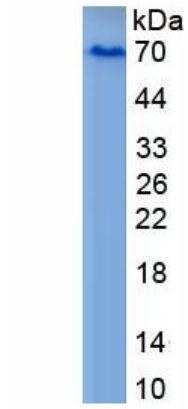


**Figure 3. SDS-PAGE**

**Sample: Active recombinant DPP9, 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.