APC534Hu61 100μg
Active Histidine Rich Glycoprotein (HRG)
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: Eukaryotic expression.

Host: 293F cell

Residues: Val19~Lys525

Tags: N-terminal His-tag

Purity: >98%

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

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

Predicted isoelectric point: 7.0

Predicted Molecular Mass: 59.3kDa

Accurate Molecular Mass: 75kDa as determined by SDS-PAGE reducing conditions.

Applications: Cell culture; Activity Assays; In vivo assays.

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

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[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]

VS PTDCSAVEPE AEKALDLINK RRRDGYLFQL
LRIADAHLDR VENTTVYYLV LDVQESDCSV LSRKYWNDCE PPDSRRPSEI
VIGQCKVIAT RHSHESQDLR VIDFNCTTSS VSSALANTKD SPVLIDFFED
TERYRKQANK ALEKYKEEND DFASFRVDRI ERVARVRGGE GTGYFVDFSV
RNCPRHHFPR HPNVFGFCRA DLFYDVEALD LESPKNLVIN CEVFDPQEHE
NINGVPPHLG HPFHWGGHER SSTTKPPFKP HGSRDHHHPH KPHEHGPPPP
PDERDHSHGP PLPQGPPPLL PMSCSSCQHA TFGTNGAQRH SHNNNSSDLH
PHKHHSHEQH PHGHHPHAHH PHEHDTHRQH PHGHHPHGHH PHGHHPHGHH
PHGHHPHCHD FQDYGPCDPP PHNQGHCCHG HGPPPGHLRR RGPGKGPRPF
HCRQIGSVYR LPPLRKGEVL PLPEANFPSF PLPHHKHPLK PDNQPFPQSV
SESCPGKFKS GFPQVSMFFT HTFPK

[ACTIVITY]

HRG (Histidine-rich glycoprotein) is a plasma glycoprotein which is distinguished by its high content of histidine and proline. HRG binds a number of ligands such as heme, heparin, heparan sulfate, thrombospondin, plasminogen, and divalent

metal ions. Thus, a functional binding ELISA assay was constructed to detect the association of rhHRG with heparin. Briefly, Microtiter wells were coated with OVA-conjugated-heparin. rhHRG were diluted serially in 0.01M PBS (pH 7.4). Duplicate samples of 100uL were then transferred to the coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-HRG PAb, then aspirated and washed 3 times. After incubation with HRP labeled 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 50μL stop solution to the wells and read at 450nm immediately.

The binding activity of rhHRG with heparin was shown in Figure 1 and this effect was in a dose dependent manner.

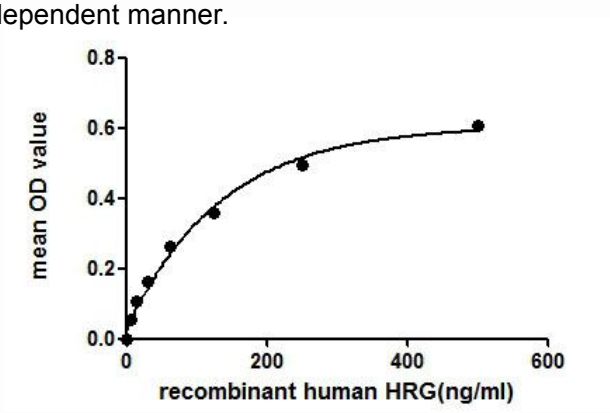

Figure 1. The Binding Activity of rhHRG with Heparin.

[IDENTIFICATION]

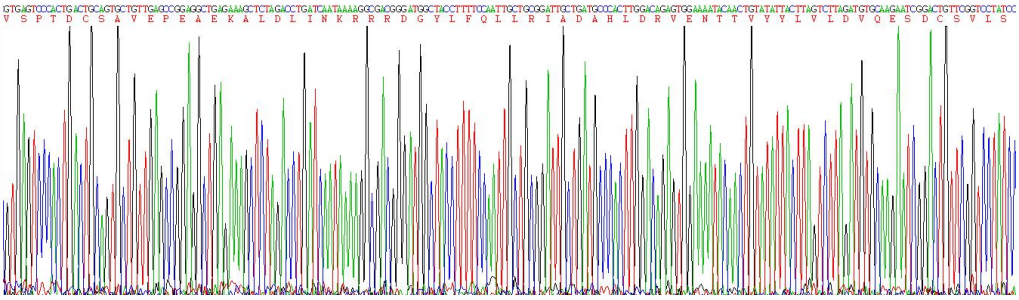

Figure 2. Gene Sequencing (extract)

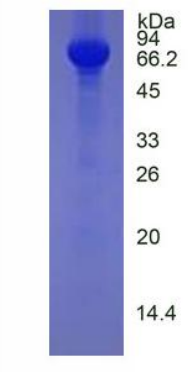

Figure 3. SDS-PAGE

Sample: Active recombinant HRG, Human

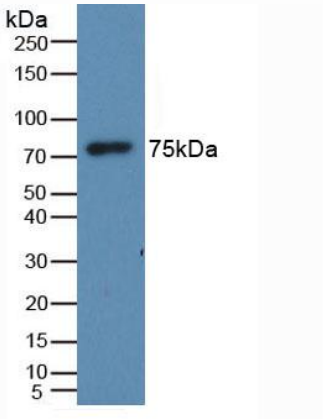

Figure 4. Western Blot

Sample: Recombinant HRG, Human;

Antibody: Rabbit Anti-Human HRG Ab (PAC534Hu06)