

**EPA899Ra61 100ug**

**Eukaryotic Osteopontin (OPN)**

**Organism Species: Rattus norvegicus (Rat)**

***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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11th Edition (Revised in May, 2016)

## **[ PROPERTIES ]**

**Source:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Leu17~Asn317

**Tags:** N-terminal His Tag

**Homology:** Human 61%, mouse 79%

**Tissue Specificity:** Blood.

**Subcellular Location:** Secreted.

**Purity:** >95%

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

**Traits:** Freeze-dried powder

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

**Original Concentration:** 200ug/mL

**Predicted isoelectric point:** 4.3

**Predicted Molecular Mass:** 34.9kDa

**Accurate Molecular Mass:** 60kDa as determined by SDS-PAGE reducing conditions.

**Applications:** SDS-PAGE; WB; ELISA; IP; CoIP; EMSA; Reporter Assays; Purification; Amine Reactive Labeling.

(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 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

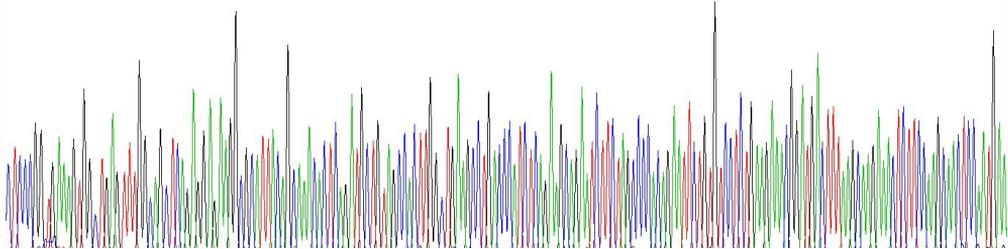
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

**[ SEQUENCE ]**

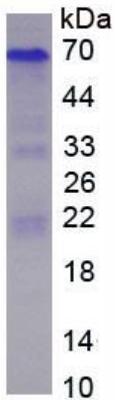
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LPVK VAEFGSSEEK AHYSKHSDAV ATWLKPDPSSQ
KQNLLAPQNS VSSEETDDFK QETLPSNSNE SHDHMDDDDD DDDGDHAE
EDSVNSDESD ESHHSDESDE SFTASTQADV LTP IPTVDV PDGRGDSLAY
GLRSKRSRFP VSDEQYPDAT DEDLTSRMKS QESDEAIKVI PVAQRSLVPS
DQDSNGKTSH ESSQLDEPSV ETHSLEQSKE YKQRASHEST EQSDAIDSAE
KPAIDSAER SDAIDSQASS KASLEHQSHF FSHEDKLV LDPKSKEDDRY
LKFRISHELE SSSSEVN
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## [ IDENTIFICATION ]

C TDCGG TG AAGTGGCTG AG TTTSGGAGC TCG AGG AG AAGGGCAATTGAGGCAAGACTGAGATGCTG TAGCCACTTGGCTG AAGGCTG ACCGATCTGAGAGGCGAGATCTTCTAGGCGCCAG AATCTG TG TCC TGTGAGAGCGGATGACTTTAGCGAGAACTCTTCAGAGACTGCATGAA  
L P V K V A E F G S S E E K A H Y S K H S D A V A T V L K P D P S Q K Q N I L A P Q N S V S S E E T D D F K Q E T L P S N S N E !



**Figure 1. Gene Sequencing (extract)**



**Figure 2. SDS-PAGE**