## Cloud-Clone Corp.

CPA915Ge11 250ug
BSA Conjugated 25-Hydroxyvitamin D3 (HVD3)
Instruction manual
FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

## [ PROPERTIES ]

Source: Protein Conjugation
Original Chemical Formula:


Original Structure: $\mathrm{C}_{27} \mathrm{H}_{44} \mathrm{O}_{2}$
Original Mol. Mass: 400.6Da
Purity: >90\%
Traits: Freeze-dried powder.
Buffer Formulation: PBS, pH7.4.
Applications: Immunogen; Coating Antigen; ELISA; SDS-PAGE.

## [ USAGE ]

Reconstitute in PBS (pH7.4) to a concentration of $0.1-1.0 \mathrm{mg} / \mathrm{mL}$. Do not vortex.

## [ STORAGE AND STABILITY ]

Storage: Avoid repeated freeze/thaw cycles.

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Store at $2-8^{\circ} \mathrm{C}$ for one month.
Aliquot and store at $-80^{\circ} \mathrm{C}$ 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 $37^{\circ} \mathrm{C}$ for 48 h , and no obvious degradation and precipitation were observed. The loss rate is less than $5 \%$ within the expiration date under appropriate storage condition.

## [ IDENTIFICATION ]

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1. }4\mu\textrm{g BSA
2. 2\mug BSA
3. }1\mu\textrm{g BSA
4. }8\mu\textrm{g HVD3-BSA
5. 4\mug HVD3-BSA
6. }2\mu\textrm{g HVD3-BSA
7. }4\mu\textrm{g OVA
8. }2\mu\textrm{g OVA
9. 1\mug OVA
10. }4\mu\textrm{g}\mathrm{ HVD3-OVA
11. 2\mug HVD3-OVA
12. 1\mu\textrm{g HVD3-OVA}
13. Marker
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Figure 1. SDS-PAGE

From the picture of PAGE, we can see that, there is little differences between carrier protein and the conjugated product which is a little diffusion. Because Mol. Mass of molecular is too small that it can be almost ignored comparing to carrier protein. At the same time, one carrier protein can conjugate with different amounts of molecular, so it ends with diffusion phenomenon. All above show that, small molecule HVD3 coupled with carrier protein successfully.

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Figure 2. UV-spectrum
Picture A: The picture clearly shows that UV Vis spectra of HVD3-OVA has an obvious change in $250-280 \mathrm{~nm}$ compared to UV Vis spectra of OVA and HVD3, which illustrates the structure of conjugated product has great changes, and it means small molecular compound HVD3 coupled with carrier protein successfully.
Picture B: The picture clearly shows that UV Vis spectra of HVD3-BSA has an obvious change in $250-280 \mathrm{~nm}$ compared to UV Vis spectra of BSA and HVD3, which illustrates the structure of conjugated product has great changes, and it means small molecular compound HVD3 coupled with carrier protein successfully.

