

Anti-Mouse Nanobody IP Agarose Beads

Catalog # KTSM1341

Size: 1.0 ml

Concentration: 1.0 ml of agarose beads coupled to 5.0 mg nanobody

Binding Capacity: 1.0 ml of Anti-Mouse Nanobody IP Agarose Beads can bind 10 mg of Mouse IgG

Physical State: Suspension of agarose beads

Host: Alpaca

Species Reactivity: Mouse

Storage Buffer: 20% Ethanol solution

Preservative: 0.03 % Sodium Azide

Storage Condition: Store vial at 4 °C prior to opening. DO NOT FREEZE. Can be used during 6 months after opening.

Description :

Camelid heavy chain antibody (HcAb) is a unique kind of antibody, which consist of two heavy chains only and naturally devoid of light chains.

The antigen-binding site of the camel HcAb consists of a single variable domain (VHH). VHH is the smallest functional antibody part (molecular weight ~15 kD, 1/10 of conventional antibody) and yet it possess full antigen binding capacity, therefore this tiny camelid antibody fragments have been named Nanobody.

A major way to obtain complete nanobody sequences is a phage display screening. Due to the Nanobody small size and unique structure, high antigen-specificity and phage screening technology, Nanobodies exhibit high affinity and specificity, enhanced tissue penetration, they can be easily modified and purified. Since it is possible to obtain the whole antibody sequence, nanobodies can be recombinantly produced in bacteria and yeasts, ensuring their consistent high quality and stable supply without batch-to-batch variations.

AlpaLife's **Anti- Mouse Nanobody IP Agarose Beads** are a suspension of activated agarose beads coupled with alpaca's Anti-Mouse IgG nanobody. It is suitable for precipitation of Mouse IgGs in immunoprecipitation and pull-down assays.

Advantages & Features:

In comparison with conventional antibody or protein A/G, Anti-Mouse Nanobody IP Agarose Beads has the following advantages:

- Can be directly used, avoiding the need to conjugate protein A/G to agarose beads
- No contamination of heavy and light chains
- Stable for stringent conditions
- Short incubation (5-30 min)
- High yield, high stability, constant high quality without batch-to-batch variations.
- Highly efficient rapid immunoprecipitation
- Clear background

Application Note:

The agarose beads could sink to the bottom during storage. Upon initial use of this product, we recommend that the vial be inverted several times (DO NOT VORTEX) to get the beads into suspension. We recommend using a large bore pipet to pipet up the liquid for use. For storage of the opened vial, we recommend that the vial cap be sealed with parafilm to help prevent evaporation of the buffer.

Protocol:

Preparation of cell lysates:

Add 50 μ L of Anti-Mouse Nanobody IP Beads and 500 μ L of cell lysate sample to a micro centrifuge tube and incubate on ice for 30 minutes. Spin at 10,000xg for 3 minutes and transfer the supernatant to a new microcentrifuge tube.

Immunoprecipitation:

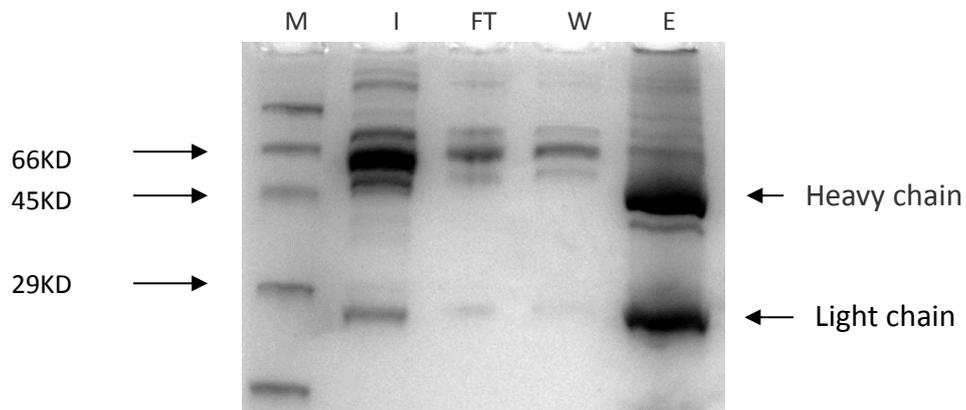
Add 5 μ g of primary antibody to the microcentrifuge tube containing the precleared lysate, incubate for 1 hour. Add 50 μ L of Anti-Mouse Nanobody IP Beads. Incubate for 1 hour on a rocking platform shaker. Spin the microcentrifuge tube at 10000xg for 1 minute. Remove supernatant completely and wash the (pelleted) beads 3 times with 500 μ L of Lysis Buffer (50mM Tris HCl, pH 8.0; 150mM NaCl; 1% NP-40).

Prepare sample for SDS-PAGE:

After the last wash, aspirate supernatant, and add 100 μ L Laemmli Buffer (with 50 mM DTT or 2% -mercaptoethanol, final) to bead pellet. Vortex and heat to 90-100 $^{\circ}$ C for 10 minutes. Spin at 10000xg for 3 minutes, collect supernatant, and load onto the gel. Avoid loading Anti-Mouse Nanobody IP Beads.

Images:

The results of SDS-PAGE after immunoprecipitation of mouse serum using Anti-Mouse Nanobody IP Agarose Beads:



M: Marker; I: Input; FT: Flow through; W: Wash; E: Elution

Pic. 1 - The results of SDS-PAGE after immunoprecipitation of mouse serum using Anti-Mouse Nanobody IP Agarose Beads