

## Anti-Human CD33 Antibody [PSH05-26] - BSA and Azide free (Detector)

# HA722255



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	ELISA(Det)
<b>Molecular Wt:</b>	Predicted band size: 40 kDa
<b>Clone number:</b>	PSH05-26

**Description:** CD33 or Siglec-3 (sialic acid binding Ig-like lectin 3, SIGLEC3, SIGLEC-3, gp67, p67) is a transmembrane receptor expressed on cells of myeloid lineage. It is usually considered myeloid-specific, but it can also be found on some lymphoid cells. It binds sialic acids, therefore is a member of the SIGLEC family of lectins. CD33 can be stimulated by any molecule with sialic acid residues such as glycoproteins or glycolipids. Upon binding, the immunoreceptor tyrosine-based inhibition motif (ITIM) of CD33, present on the cytosolic portion of the protein, is phosphorylated and acts as a docking site for Src homology 2 (SH2) domain-containing proteins like SHP phosphatases. This results in a cascade that inhibits phagocytosis in the cell.

**Immunogen:** Recombinant protein within human CD33 aa 18-259 (P20138).

**Positive control:** Recombinant Human CD33 protein.

**Subcellular location:** Cell membrane; Peroxisome.

**Database links:** SwissProt: P20138 Human

**Recommended Dilutions:**

**ELISA(Det)** Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH05-25] to Human CD33 (Capture) (HA722254). The reference range value is 22.6-5500pg/ml.

**Storage Buffer:** PBS (pH7.4).

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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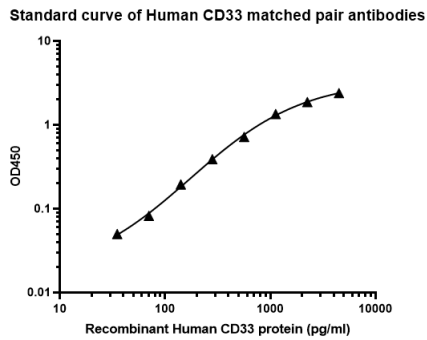
Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

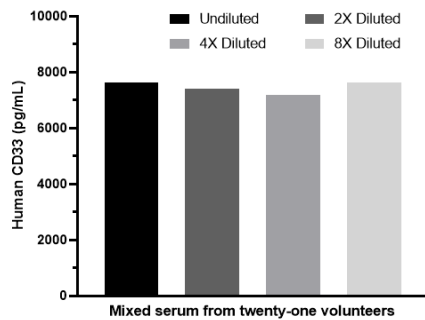
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## Images

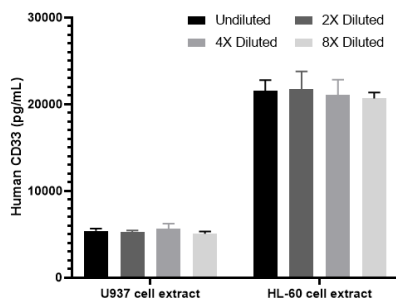


**Fig1:** Sandwich ELISA analysis of Human CD33 matched pair antibody

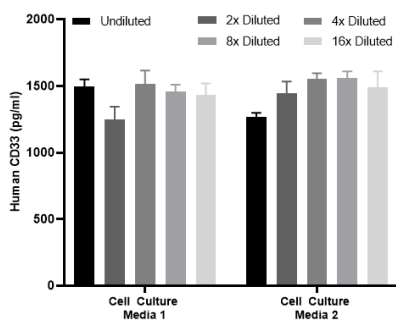
Elisa assay was performed by coating wells of a 96-well plate with 50  $\mu$ l per well of capture antibody (HA722254) diluted in carbonate/bicarbonate buffer, at a concentration of 2  $\mu$ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150  $\mu$ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human CD33 protein starting from 10000 pg/ml to 0 pg/ml and detect antibody (HA722255, Biotin, 0.2  $\mu$ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 50  $\mu$ l per well of SA-HRP for 0.5 hour at 30°C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.



**Fig2:** The concentrations of CD33 were interpolated from the CD33 standard curves and corrected for sample dilution. Undiluted samples are mixed serum from twenty-one volunteers 5%. The mean CD33 concentration was determined to be 7,466 pg/mL in mixed serum from twenty-one volunteers.



**Fig3:** Interpolated concentrations of native CD33 in U937 and HL-60 extract samples based on a 1,000  $\mu$ g/mL extract load. The concentrations of CD33 were measured in triplicates, interpolated from the CD33 standard curve and corrected for sample dilution. Undiluted samples are U937 extract 5% and HL-60 extract 1%. The mean CD33 concentration was determined to be 5,333 pg/mL in U937 extract and 21,225 pg/mL in HL-60 extract.



**Fig4:** Interpolated concentrations of spiked CD33 in human cell culture media samples.

The concentrations of CD33 were measured in triplicates, interpolated from the CD33 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2).

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Albinger N et al. Primary CD33-targeting CAR-NK cells for the treatment of acute myeloid leukemia. *Blood Cancer J.* 2022 Apr
2. Willier S et al. CLEC12A and CD33 coexpression as a preferential target for pediatric AML combinatorial immunotherapy. *Blood.* 2021 Feb

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