

## Anti-Human CD40 Antibody [PSH22-80] - BSA and Azide free (Detector)

# HA724325



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	ELISA(Det)
<b>Clone number:</b>	PSH22-80

**Description:** Cluster of differentiation 40, CD40 is a type I transmembrane protein found on antigen-presenting cells and is required for their activation. The binding of CD154 (CD40L) on TH cells to CD40 activates antigen presenting cells and induces a variety of downstream effects. Activated CD4+ T cells primarily exhibit its ligand CD40L/CD154 to antigen-presenting cells including dendritic cells (DCs), B cells, macrophages, classical and non-classical monocytes, on a variety of non-immune cells including platelets and endothelial cells, and on several types of tumor cells. Mutations affecting this gene are the cause of autosomal recessive hyper-IgM immunodeficiency.

**Immunogen:** Recombinant protein within Human CD40 aa 21-193 (HA211232).

**Positive control:** Recombinant Human CD40 protein (HA211232).

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

**Database links:** SwissProt: P25942 Human

### Recommended Dilutions:

**ELISA(Det)** Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH22-79] to Human CD40 (Capture) (HA724324) and Recombinant Human CD40 protein (HA211232) as the standard. The reference range value is 3.9-1,000 pg/mL.

**Storage Buffer:** 1\*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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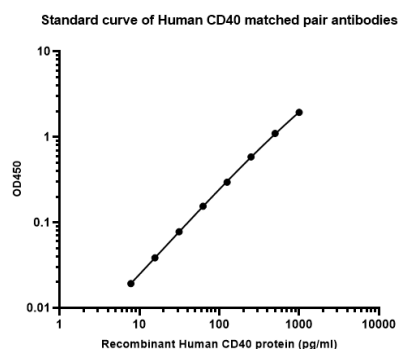
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## Images

**Fig1:** Sandwich ELISA analysis of Human CD40 matched pair antibodies

Capture: HA724324, Human CD40 Rabbit mAb [PSH22-79]

Detector: HA724325, Human CD40 Rabbit mAb [PSH22-80]

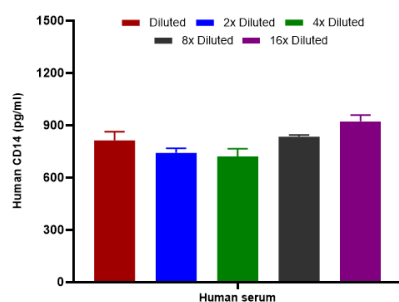


Elisa assay was performed by coating wells of a 96-well plate with 100  $\mu$ l per well of capture antibody (HA724324) diluted in carbonate/bicarbonate buffer, at a concentration of 2 $\mu$ g/ml overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150  $\mu$ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human CD40 protein (HA211232) starting from 1000 pg/ml to 0 pg/ml and detect antibody (HA724325, Biotin, 0.2  $\mu$ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 100  $\mu$ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ 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:** Interpolated concentrations of native CD14 in Human serum.

Capture: HA724324, Human CD40 Rabbit mAb [PSH22-79]

Detector: HA724325, Human CD40 Rabbit mAb [PSH22-80]

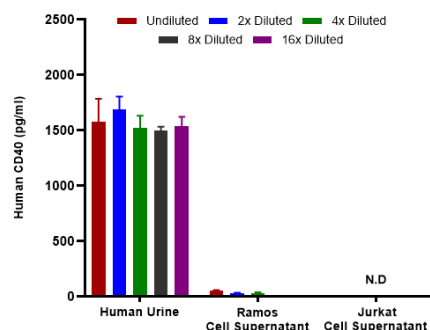


Interpolated concentration of native CD14 was measured in duplicate at different sample concentrations and interpolated from the CD14 standard curves. The interpolated dilution factor corrected values were plotted (mean  $\pm$  SD, n=2). The mean CD14 concentration was determined to be 808 pg/ml in Human serum.

**Fig3:** Interpolated concentrations of native CD40 in human samples.

Capture: HA724324, Human CD40 Rabbit mAb [PSH22-79]

Detector: HA724325, Human CD40 Rabbit mAb [PSH22-80]



Interpolated concentration of native CD40 was measured in duplicate at different sample concentrations. The interpolated dilution factor corrected values were plotted (mean  $\pm$  SD, n=2). The mean CD40 concentration was determined to be 1,566 pg/mL in human urine and 41 pg/ml in Ramos cell culture supernatant. There was no detectable signal in Jurkat cell culture supernatant.

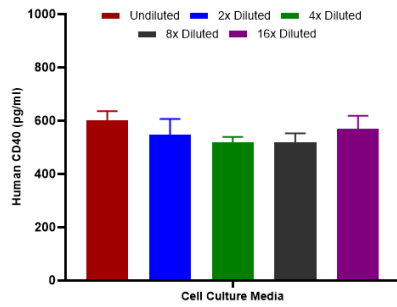
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**Fig4:** Interpolated concentrations of spiked CD40 in cell culture media samples.

Capture: HA724324, Human CD40 Rabbit mAb [PSH22-79]  
Detector: HA724325, Human CD40 Rabbit mAb [PSH22-80]

The concentrations of CD40 were measured in duplicates, interpolated from the CD40 standard curves and corrected for sample dilution. Diluted samples are as follows: 50% cell culture media with FBS. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

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

### Background References

1. McVey JC et al. Facts and Hopes of CD40 Agonists in Cancer Immunotherapy. Clin Cancer Res. 2025 Jun
2. Diggs LP et al. CD40-mediated immune cell activation enhances response to anti-PD-1 in murine intrahepatic cholangiocarcinoma. J Hepatol. 2021 May

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