Anti-Human CD137 Antibody [PSH08-62] - BSA and Azide free (Detector)

HA723010

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Clone number:	PSH08-62

Description: The protein encoded by this gene is a member of the TNF-receptor superfamily. This receptor contributes to the clonal expansion, survival, and development of T cells. It can also induce proliferation in peripheral monocytes, enhance T cell apoptosis induced by TCR/CD3 triggered activation, and regulate CD28 co-stimulation to promote Th1 cell responses. The expression of this receptor is induced by lymphocyte activation. TRAF adaptor proteins have been shown to bind to this receptor and transduce the signals leading to activation of NF-kappaB. An autosomal recessive primary immune disorder characterized by recurrent sinopulmonary infections, susceptibility to infection with Epstein-Barr virus (EBV), persistent EBV viremia, and EBV-induced lymphoproliferation or B-cell lymphoma.

Immunogen: Recombinant protein within Human CD137 aa 24-186 (HA210839).

Positive control: Recombinant Human CD137 protein (HA210839).

Subcellular location: Cell membrane.

Database links: SwissProt: Q07011 Human

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH08-61] to Human CD137 antibody (Capture) (HA723009) and recombinant Human CD137 protein (HA210839) as the standard. The reference range value is 32.9-8,000 pg/ml.

Storage Buffer: PBS (pH7.4).

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

Purity: Protein A affinity purified.

Images

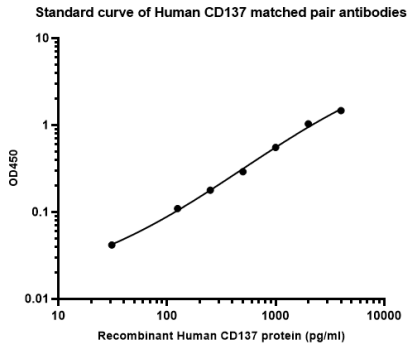

Fig1: Sandwich ELISA analysis of Human CD137 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA723009) diluted in carbonate/bicarbonate buffer, at a concentration of 2 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human CD137 protein (HA210839) starting from 8,000 pg/ml to 0 pg/ml and detect antibody (HA723010, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ 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.

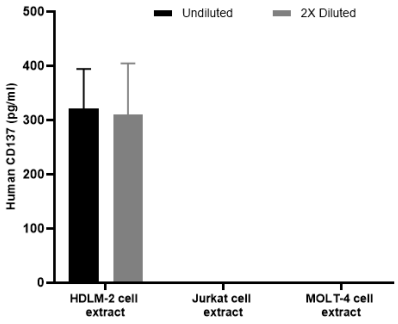

Fig2: Interpolated concentrations of native CD137 in HDLM-2, Jurkat and MOLT-4 extract samples based on a 2,000 µg/ml extract load.

The concentrations of CD137 were measured in duplicates, interpolated from the CD137 standard curve and corrected for sample dilution. Undiluted samples are HDLM-2 extract 100%, Jurkat extract 100% and HOLT-4 extract 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD137 concentration was determined to be 315.9 pg/ml in HDLM-2 extract and undetectable in Jurkat and MOLT-4 extract.

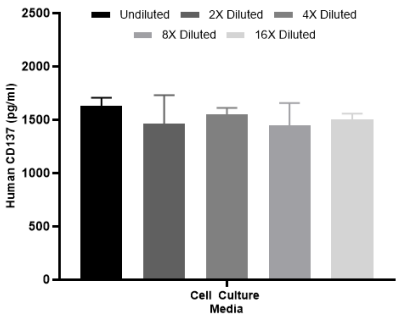

Fig3: Interpolated concentrations of spiked CD137 in human cell culture media samples.

The concentrations of CD137 were measured in duplicates, interpolated from the CD137 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 +/- SD, n=2).

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

Background References

1. Alosaimi M.F., Hoenig M., Jaber F., Platt C.D., Jones J., Wallace J., Debatin K.M., Schulz A., Jacobsen E., Geha R.S. Immunodeficiency and EBV-induced lymphoproliferation caused by 4-1BB deficiency. J. Allergy Clin. Immunol. 144:574-583 (2019)