Anti-Human Growth Hormone Antibody [PSH12-82] - BSA and Azide free (Detector)

HA725107

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Clone number:	PSH12-82

Description: Growth hormone 1, also known as pituitary growth hormone or simply as growth hormone (GH) somatotropin, is a protein that in humans is encoded by the GH1 gene. The protein encoded by this gene is a member of the somatotropin/prolactin family of hormones that play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation, an arrangement thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. This particular family member is expressed in the pituitary but not in placental tissue as is the case for the other four genes in the growth hormone locus. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature.

Immunogen: Recombinant protein within Human Growth Hormone aa 27-217 (HA211027).

Positive control: Recombinant Human Growth Hormone protein (HA211027).

Subcellular location: Secreted.

Database links: SwissProt: P01241 Human

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH12-81] to Human Growth Hormone antibody (Capture) (HA725106) and Recombinant Human Growth Hormone protein (HA211027) as the standard. The reference range value is 7.8 -1,000 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

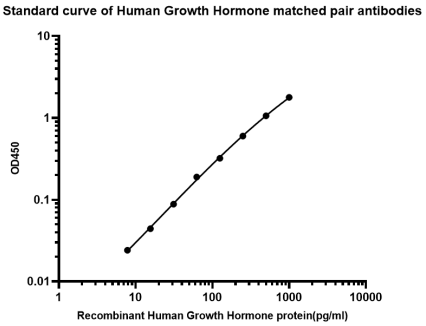

Fig1: Sandwich ELISA analysis of Human Growth Hormone matched pair antibodies

Capture: HA725106, Human Growth Hormone Rabbit mAb [PSH12-81]
Detector: HA725107, Human Growth Hormone Rabbit mAb [PSH12-82]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA725106) diluted in carbonate/bicarbonate buffer, at a concentration of 5 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 Growth Hormone protein (HA211027) starting from 1000 pg/ml to 0 pg/ml and detect antibody (HA725107, 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.

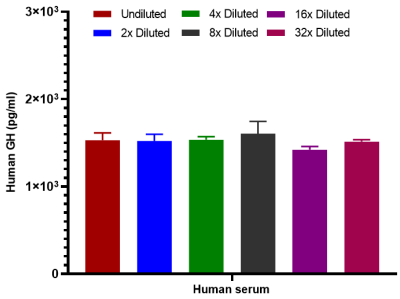

Fig2: Interpolated concentrations of native Growth Hormone in human serum samples.

Capture: HA725106, Human Growth Hormone Rabbit mAb [PSH12-81]
Detector: HA725107, Human Growth Hormone Rabbit mAb [PSH12-82]

Interpolated concentration of native Growth Hormone was measured in duplicate at different sample concentrations. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean Growth Hormone concentration was determined to be 1522 pg/mL in Human serum.

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

Background References

1. Hjelholt A et al. Growth Hormone and Obesity. Endocrinol Metab Clin North Am. 2020 Jun
2. Miller BS et al. Long-Acting Growth Hormone Preparations - Current Status and Future Considerations. J Clin Endocrinol Metab. 2020 Jun