

ARG80779 Human Intact PTH / Parathyroid Hormone ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG80779 Human Intact PTH / Parathyroid Hormone ELISA Kit is intended for the quantification of Intact-PTH (Parathyroid Hormone) in human serum and plasma (EDTA).
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Intact PTH / Parathyroid Hormone
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm or 405 nm
Sensitivity	1.57 pg/ml
Sample Type	Serum and plasma (EDTA).
Standard Range	11.1 - 971 pg/ml
Sample Volume	25 µl
Alternate Names	PTH1; Parathyroid hormone; Parathyrin; Parathormone; PTH

Application Instructions

Assay Time	3 h, 30 min (RT/shaker)
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Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 5741 Human Swiss-port # P01270 Human
Gene Symbol	PTH
Gene Full Name	parathyroid hormone
Background	PTH (Parathyroid hormone, Parathormone, Parathyrin) is biosynthesized in the parathyroid gland as a pre-proparathyroid hormone, a larger molecular precursor consisting of 115 amino acids. Following sequential intracellular cleavage of a 25-amino acid sequence, preproparathyroid hormone is converted to an intermediate, a 90-amino acid polypeptide, proparathyroid hormone. With additional proteolytic modification, proparathyroid hormone is then converted to parathyroid hormone, an 84 amino acid polypeptide. In healthy individuals, regulation of parathyroid hormone secretion normally occurs via a

negative feedback action of serum calcium on the parathyroid glands. Intact PTH is biologically active and clears very rapidly from the circulation with a half-life of less than four minutes. PTH undergoes proteolysis in the parathyroid glands, but mostly peripherally, particularly in the liver but also in the kidneys and bone, to give N-terminal fragments and longer lived C-terminal and midregion fragments. In subjects with renal insufficiency, C-terminal and midregion PTH assays typically give elevated PTH results, as reflected by impaired renal clearance.

Intact PTH assays are important for the differentiation of primary hyperparathyroidism from other (non-parathyroid-mediated) forms of hypercalcemia, such as malignancy, sarcoidosis and thyrotoxicosis. The measurement of parathyroid hormone is the most specific way of making the diagnosis of primary hyperparathyroidism. In the presence of hypercalcemia, an elevated level of parathyroid hormone virtually establishes the diagnosis. In over 90% of patients with primary hyperparathyroidism, the parathyroid hormone will be elevated. The most common other cause of hypercalcemia, namely hypercalcemia of malignancy, is associated with suppressed levels of parathyroid hormone or PTH levels within the normal range. When intact PTH level is plotted against serum calcium, the intact PTH concentration for patients with hypercalcemia of malignancy is almost always found to be inappropriately low when interpreted in view of the elevated serum calcium. Unlike C-terminal and midregion PTH, which typically are grossly elevated in subjects with renal insufficiency, intact PTH assays are less influenced by the declining renal function. PTH values are typically undetectable in hypocalcemia due to total hypoparathyroidism, but are found within the normal range in hypocalcemia due to partial loss or inhibition of parathyroid function.

Highlight

Related products:

[PTH antibodies](#); [PTH ELISA Kits](#); [PTH Duos / Panels](#);

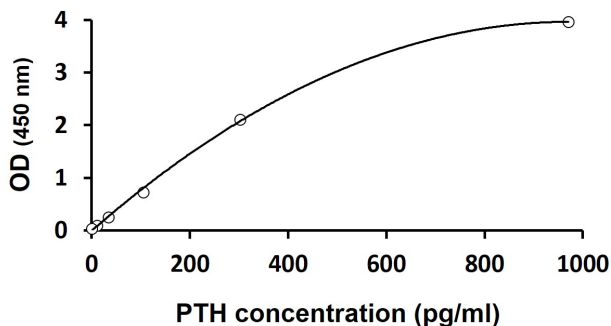
New ELISA data calculation tool:

[Simplify the ELISA analysis by GainData](#)

Research Area

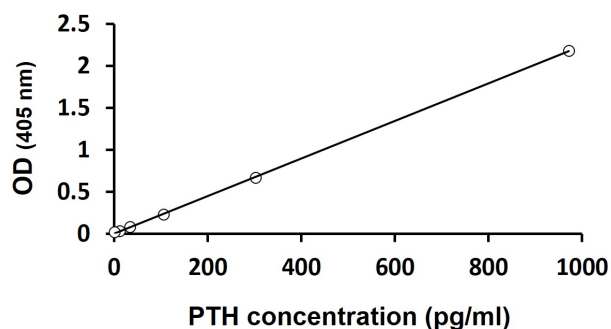
Signaling Transduction kit

Images



ARG80779 Human Intact PTH / Parathyroid Hormone ELISA Kit example of standard curve image

ARG80779 Human Intact PTH / Parathyroid Hormone ELISA Kit results of a typical standard run with optical density reading at 450 nm.



ARG80779 Human Intact PTH / Parathyroid Hormone ELISA Kit example of standard curve image

ARG80779 Human Intact PTH / Parathyroid Hormone ELISA Kit results of a typical standard run with optical density reading at 405 nm.