

Datasheet: 7170-6216

Description:	MOUSE ANTI HUMAN PARATHYROID HORMONE		
Specificity:	PARATHYROID HORMONE		
Other names:	PTH		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	BGN/1F8		
Isotype:	lgG1		
Quantity:	0.2 mg		

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	-			
Immunohistology - Paraffin	-			
ELISA	-			1/2 000 - 1/20 000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

Target Species	Human				
Species Cross Reactivity	Reacts with: Rat, Mouse N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.				
Product Form	Purified IgG - liquid				
Preparation	Purified IgG prepared by affinity chromatography on Protein A supernatant	A from tissue culture			
Buffer Solution	Phosphate buffered saline				

Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)	
Carrier Free	Yes	
Approx. Protein Concentrations	1.0 mg/ml	
Immunogen	Synthetic peptide corresponding to amino acids 1-34 of mature PTH conjugated to a proprietary carrier molecule	
External Database Links	UniProt: P01270 Related reagents Entrez Gene: 5741 PTH Related reagents	
RRID	AB 620616	

Specificity

Mouse anti Human parathyroid hormone monoclonal antibody, clone BGN/1F8 recognizes human parathyroid hormone (PTH) also known as Parathyrin. PTH is a hormone produced by the parathyroid gland responsible for the regulation of calcium and phosphorus concentrations in extracellular fluid (Brown 1983).

Human parathyroid hormone is produced in the parathyroid gland as a 115 amino acid single chain polypeptide, bearing a 25 amino acid signal peptide, a 6 amino acid pro-peptide sequence and an 84 amino acid mature hormone. (Keutmann et al. 1978).

Defects in the PTH gene are a cause of familial isolated hypoparathyroidism (<u>FIH</u>), a condition characterized by hypocalcemia and hyperphosphatemia owing to levels of parathyroid hormone being insufficient to maintain extracellular calcium concentrations within normal parameters. Clinical features of FIH include cramps, seizures and tetany (<u>Arnold et al. 1990</u>). More rarely, hypoparathyroidism like disease, Pseudohypothyroidism (<u>PHP1A</u>) may be caused by mutations in the GNAS gene (<u>Mantovani & Spada 2006</u>) or defects in the PTHR1 gene (<u>Cohen 2002</u>) leading to Jansen metaphyseal chondrodysplasia (<u>JMC</u>), conditions where end organ resistance to PTH function exists .

References

- 1. Nechama, M. *et al.* (2009) The peptidyl-prolyl isomerase Pin1 determines parathyroid hormone mRNA levels and stability in rat models of secondary hyperparathyroidism. <u>J Clin Invest.</u> 119: 3102-14.
- 2. Meir, T. *et al.* (2009) Deletion of the vitamin D receptor specifically in the parathyroid demonstrates a limited role for the receptor in parathyroid physiology. <u>Am J Physiol Renal Physiol. 297: F1192-8.</u>
- 3. Arrighi, I. *et al.* (2009) Bone healing induced by local delivery of an engineered parathyroid hormone prodrug. <u>Biomaterials</u>. 30: 1763-71.
- 4. Galitzer, H. *et al.* (2010) Parathyroid cell resistance to fibroblast growth factor 23 in secondary hyperparathyroidism of chronic kidney disease. <u>Kidney Int. 77: 211-8.</u>
- 5. Ferrè, S. et al. (2013) Early Development of Hyperparathyroidism Due to Loss of PTH

Transcriptional Repression in Patients With HNF1β Mutations? J Clin Endocrinol Metab. 98: 4089-96.

6. Nakamura, T. et al. (2025) Molecular mechanism for transcriptional regulation of the parathyroid hormone gene by Epiprofin. FEBS J. Mar 31 [Epub ahead of print].

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch **Health And Safety** Material Safety Datasheet documentation #10040 available at: Information https://www.bio-rad-antibodies.com/SDS/7170-6216 10040 Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) **RPE**

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...) **RPE**

Goat Anti Mouse IgG (STAR70...) **FITC**

Rabbit Anti Mouse IgG (STAR13...) **HRP**

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) **FITC**

Goat Anti Mouse IgG (STAR77...) **HRP**

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376 America

Tel: +44 (0)1865 852 700 Worldwide

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +1 919 878 3751

Fax: +44 (0)1865 852 739

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_us@bio-rad.com

Email: antibody_sales_uk@bio-rad.com

Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M395654:220519'

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