

Datasheet: 7060-1815

Description:	GOAT ANTI MOUSE OSTEOCALCIN
Specificity:	OSTEOCALCIN
Other names:	BONE GLA PROTEIN
Format:	Serum
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

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	▪			1/50 - 1/500
Immunofluorescence	▪			

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	Mouse
Species Cross Reactivity	Does not react with:Rat, Human, Bovine, Monkey, Elk, Chicken
Product Form	Serum - liquid
Preservative Stabilisers	0.1% Sodium Azide (NaN ₃)
Immunogen	Highly purified native mouse osteocalcin.
External Database Links	<p>UniProt: P86547 Related reagents</p> <p>Entrez Gene: 12097 Bglap2 Related reagents</p>

Specificity

Goat anti mouse osteocalcin antibody is specific for intact osteocalcin and recognizes a site at the carboxyl terminal.

Osteocalcin (Bone Gla Protein) is a 49 amino acid single chain vitamin K dependent protein (MW

5.8 kDa), made by osteoblasts that is a major component of the non-collagenous bone matrix. Serum osteocalcin is elevated in diseases characterized by increased bone turnover such as osteoporosis, hyperparathyroidism and Paget's disease, and low in conditions associated with low bone turnover such as hypoparathyroidism and growth hormone deficiency.

References

1. Gundberg, C. M. *et al.* (1992) Development and validation of a radioimmunoassay for mouse osteocalcin: paradoxical response in the Hyp mouse. [Endocrinology.130 \(4\):1909-1915.](#)
2. Matsumoto, T. *et al.* (2010) Lnk-dependent axis of SCF-cKit signal for osteogenesis in bone fracture healing. [J Exp Med. 207: 2207-23.](#)
3. Davies, M.R. *et al.* (2003) BMP-7 is an efficacious treatment of vascular calcification in a murine model of atherosclerosis and chronic renal failure. [J Am Soc Nephrol. 14 \(6\): 1559-67.](#)
4. Tasso, R. *et al.* (2009) Recruitment of a host's osteoprogenitor cells using exogenous mesenchymal stem cells seeded on porous ceramic. [Tissue Eng Part A. 15: 2203-12.](#)
5. Qian, H. *et al.* (2013) Molecular characterization of prospectively isolated multipotent mesenchymal progenitors provides new insight into the cellular identity of mesenchymal stem cells in mouse bone marrow. [Mol Cell Biol. 33: 661-77.](#)
6. Cherry, H.M. *et al.* (2014) *In vivo* phenotypic characterisation of nucleoside label-retaining cells in mouse periosteum. [Eur Cell Mater. 27: 185-95; discussion 195.](#)
7. Ma, M.S. *et al.* (2016) Characterization and comparison of osteoblasts derived from mouse embryonic stem cells and induced pluripotent stem cells. [J Bone Miner Metab. Jan 8. \[Epub ahead of print\]](#)
8. Sista S *et al.* (2011) The influence of surface energy of titanium-zirconium alloy on osteoblast cell functions in vitro. [J Biomed Mater Res A. 97 \(1\): 27-36.](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10342 available at:
10342: <https://www.bio-rad-antibodies.com/uploads/MSDS/10342.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Goat IgG (Fc) (STAR122...) [FITC](#), [HRP](#)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

'M318386:180718'

Printed on 23 Oct 2018