

DATASHEET

GPNMB Rabbit Monoclonal Antibody(ARA886)

CAT. NO. ARA6713

KEY FEATURES

Target	GPNMB	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	IHC	Storage	-20°C

BACKGROUND

Transmembrane glycoprotein NMB is a protein that in humans is encoded by the GPNMB gene. Two transcript variants encoding 560 and 572 amino acid isoforms have been characterized for this gene in humans. The mouse and rat orthologues of GPNMB are known as DC-HIL and Osteoactivin (OA), respectively. GPNMB is a type I transmembrane glycoprotein which shows homology to the pmel17 precursor, a melanocyte-specific protein. GPNMB has been reported to be expressed in various cell types, including: melanocytes, osteoclasts, osteoblasts, dendritic cells, and it is overexpressed in various cancer types. In melanocytic cells and osteoclasts the GPNMB gene is transcriptionally regulated by Microphthalmia-associated transcription factor. In osteoblast progenitor cells, Osteoactivin works as a positive regulator of osteoblast differentiation during later stages of matrix maturation and mineralization[9] that is mediated at least in part by Bone_morphogenetic_protein_2 in a SMAD1 dependent manner to promote osteoblast differentiation. In addition, using a rat fracture model, Osteoactivin (OA) enhances the repairing process in bone fracture, demonstrated by its high expression during chondrogenesis (soft callus) and osteogenesis (hard callus) compared to the intact femurs that is why Osteoactivin (OA) could be a novel therapeutic agent used to treat generalized osteoporosis or localized osteopenia during fracture repair by stimulating bone growth and regeneration. Similarly, Osteoactivin expression increases during osteoclast differentiation and it is functionally implicated in this process, possibly by promoting the fusion of osteoclast progenitor cells.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

IHC	1:100-1: 200
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*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Antibody Type	Recombinant Rabbit monoclonal Antibody
Immunogen	Recombinant protein within human GPNMB aa 1-498 / 572
Molecular Weight	Predicted band size: 64 kDa
Positive Control	L929 cell lysate, A375 cell lysate, U-937 cell lysate, rat heart tissue lysate, BL6F1 cell lysates, human lung tissue, L929
Conjugation	unconjugated
Form/Buffer	PBS (pH7.4), 0.1% BSA, 40% Glycerol, Preservative: 0.05% Sodium Azide
Isotype	IgG
Purification	Protein A affinity purified

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

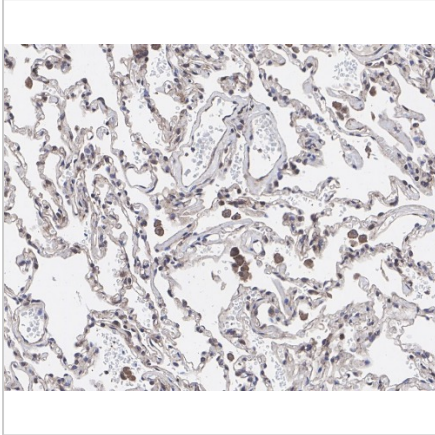
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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DATA



Immunohistochemical analysis of paraffin-embedded human lung tissue with GPNMB Rabbit Monoclonal Antibody(ARA886)

STORAGE

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexbio.com