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Datasheet for ABIN6719897 Osteoactivin ELISA Kit

Overview

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| Quantity: | 1 kit |
| Target: | Osteoactivin (GPNMB) |
| Reactivity: | Human |
| Method Type: | Sandwich ELISA |
| Detection Range: | 156 pg/mL - 10000 pg/mL |
| Minimum Detection Limit: | 156 pg/mL |
| Application: | ELISA |

Product Details

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| Purpose: | Sandwich ELISA for Quantitative Detection of Antigen |
| Sample Type: | Cell Culture Lysate, Cell Culture Supernatant, Plasma (EDTA - heparin), Serum, Tissue Homogenate |
| Analytical Method: | Quantitative |
| Detection Method: | Colorimetric |
| Characteristics: | <p>Synonyms: Gpnmb, GPNMB_HUMAN, Transmembrane glycoprotein HGFIN, Transmembrane glycoprotein NMB</p> <p>Background: Transmembrane glycoprotein NMB is a protein that in humans is encoded by the GPNMB gene. In osteoblast progenitor cells, GPNMB works as a positive regulator of osteoblast differentiation during later stages of matrix maturation and mineralization that is mediated at least in part by BMP-2 in a SMAD1 dependent manner to promote osteoblast differentiation. GPNMB can enhance the repairing process in bone fracture, demonstrated by its</p> |

Product Details

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, GPNMB expression increases during osteoclast differentiation and it is functionally implicated in this process, possibly by promoting the fusion of osteoclast progenitor cells.

Gene Name: GPNMB

Production: Natural and recombinant human GPNMB. There is no detectable cross-reactivity with other relevant proteins.

Standard: Expression system for standard: NSO, Immunogen sequence: A22-P486

Target Details

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| Target: | Osteoactivin (GPNMB) |
| Alternative Name: | GPNMB - Osteoactivin (GPNMB Products) |
| Gene ID: | 10457 |
| NCBI Accession: | NP_001005340 |
| UniProt: | Q14956 |

Application Details

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| Application Notes: | <p>Application Note: Useful in Sandwich ELISA for Quantitative Detection of Antigen. Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human GPNMB standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. It is recommended that each human GPNMB standard solution and each sample be measured in duplicate.</p> <p>Blood Product Anticoagulant: Heparin Sodium</p> <p>ELISA Dilution: 156pg/mL-10,000pg/mL</p> |
| Sample Volume: | 100 µL |
| Plate: | Pre-coated |
| Restrictions: | For Research Use only |

Handling

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| Storage: | RT, 4 °C, -20 °C |
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| Storage Comment: | Store vials at 4°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 6 months at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage freeze at -20°C or below for 12 months. Avoid cycles of freezing and thawing. |
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