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antibody and ELISA experts

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Anti-OIF/Ogn Antibody Picoband®

Catalog Number: A07061-1

About Ogn

Osteoglycin (also called mimecan), encoded by the OGN gene, is a human protein. This gene encodes a member of the small leucine-rich proteoglycan (SLRP) family of proteins. The encoded protein induces ectopic bone formation in conjunction with transforming growth factor beta and may regulate osteoblast differentiation. High expression of the encoded protein may be associated with elevated heart left ventricular mass.

Overview

Product Name	Anti-OIF/Ogn Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-OIF/Ogn Antibody Picoband® catalog # A07061-1. Tested in ELISA, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q62000

Technical Details

Immunogen	E. coli-derived mouse OIF recombinant protein (Position: A20-F298).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.

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Suggested Dilutions	Western blot,0.1-0.5ug/ml ELISA (Cap),1-5ug/ml

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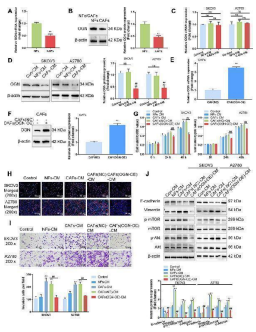
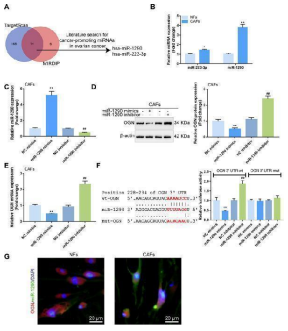
Anti-OIF/Ogn Antibody Picoband® (A07061-1) Images

Western blot analysis of OIF using anti-OIF antibody (A07061-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant mouse OGN protein 1ng. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-OIF antigen affinity purified polyclonal antibody (Catalog # A07061-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for OIF at approximately 34KD. The expected band size for OIF is at 34KD.



Culture with OGN-overexpressing CAFs-derived conditioned medium inhibits ovarian cancer cell aggressiveness (A – B) The mRNA expression and protein levels of OGN were examined in CAFs and NFs by qRT-PCR and Immunoblotting, respectively. (C – D) SKOV3 and A2780 cells were co-cultured with CAFs- or NFs-derived conditioned medium (CAFs-CM/NFs-CM) and examined for the mRNA expression and protein levels of OGN in SKOV3 and A2780 cells by qRT-PCR and Immunoblotting, respectively. (E – F) OGN overexpression was achieved in CAFs by transducing OGN overexpression vector (OGN-OE); OGN overexpression was confirmed by qRT-PCR and Immunoblotting, respectively. Then, SKOV3 and A2780 cells were cultured in control medium (con-CM), CAFs-CM, NF-CM, CAFs (lv-NC)-CM, or CAFs (OGN-OE)-CM, and examined for cell viability by MTT assay (G); DNA synthesis capacity by EdU (H); cell invasion by Transwell with chambers pre-coated with Matrigel (I); the protein levels of E-cadherin, vimentin, p-mTOR, mTOR, p-Akt, and Akt by Immunoblotting (J). ** P



miR-1290 directly targets OGN and inhibits OGN expression (A) Targetscan, miRDIP, and literature search methods were used to search for miRNAs that might target OGN and serve as oncogenic miRNAs, and two miRNAs (miR-223-3p and miR-1290) were obtained. (B) The expression of miR-223-3p and miR-1290was examined in CAFs and NFs by qRT-PCR. (C – D) miR-1290 overexpression or inhibition was achieved in CAFs by transducing miR-1290 mimics or inhibitor; miR-1290 overexpression or inhibition was confirmed by qRT-PCR and Immunoblotting, respectively. (E) CAFs were transduced with miR-1290 mimics or inhibitor and examined for the mRNA expression by qRT-PCR. (F) Wild- and mutant-type OGN luciferase reporter vectors (wt-OGN/mut-OGN) were constructed as described in the M&M section. Then, wt-OGN or mut-OGN was co-transduced into

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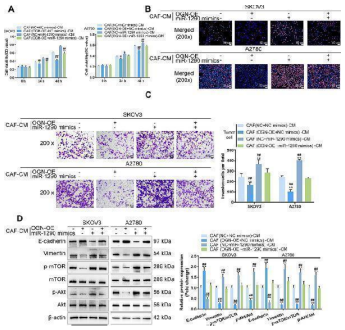
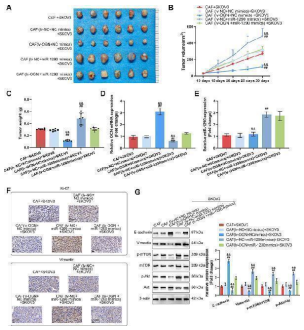
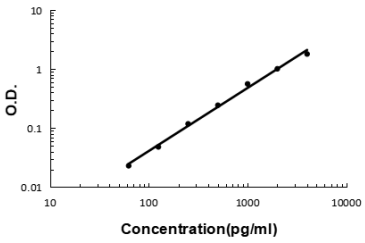
293T cells with miR-1290 mimics/inhibitor; the luciferase activity was determined. (G) The expression and location of miR-1290 and OGN in CAFs and NFs were determined by FISH assay. miR-1290 (green), OGN (red). Scale bar = 20 um. * P



The miR-1290/OGN axis in CAFs modulates ovarian cancer cell aggressiveness SKOV3 and A2780 cells were cultured in CAFs co-transduced with miR-1290 mimics and OGN-OE and examined for cell viability by MTT (A); DNA synthesis capacity by EdU (B); cell invasion by Transwell with chambers pre-coated with Matrigel (C); the protein levels of E-cadherin, vimentin, p-mTOR, mTOR, p-Akt, and Akt by Immunoblotting (D). ** P



The miR-1290/OGN axis in CAFs modulates tumorigenic capacity of ovarian cancer cell in vivo Xenograft transplanted tumor models were established in nude mice by injecting a mixture of SKOV3 cells with CAFs or infected CAFs (infected with miR-1290 mimics or lv-OGN) and nude mice were separated into five groups (n = 6 per group): the SKOV3 cells + CAFs group, the SKOV3 cells + CAFs (lv-NC + NC mimics) group, the SKOV3 cells + CAFs (lv-OGN + NC mimics) group, the SKOV3 cells + CAFs (lv-NC + miR-1290 mimics) group, the SKOV3 cells + CAFs (lv-OGN + miR-1290 mimics) group. (A) Images of the tumors in each group. (B) Tumor volumes were measured every five days from the 10th day of the experiment. (C) Tumor weight were determined at the 30th day. (D – E) The mRNA levels of OGN and miR-1290 in mice tumor tissues were detected by qRT-PCR. (F) Ki67 and Vimentin levels in tumor tissues were examined using IHC staining. Scale bar = 20 um. (G) The protein levels of E-cadherin, vimentin, p-mTOR, mTOR, p-Akt, and Akt in tumor tissues were determined using immunoblotting. * P



Sandwich ELISA - Recombinant mouse OIF/Ogn protein standard curve. Use in combination with reagents from Mouse OIF/Ogn ELISA Kit EZ-Set (DIY Antibody Pairs) (EZ1617).

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