antibodies -online.com





anti-Osteoactivin antibody (AA 81-180)

Validation

Images



Publications



| \sim | | | |
|--------|------|-------|------------|
| | IV/E | ۱//۱۲ | $I \cap V$ |

| Quantity: | 100 μL | |
|----------------------|--|--|
| Target: | Osteoactivin (GPNMB) | |
| Binding Specificity: | AA 81-180 | |
| Reactivity: | Human, Mouse, Rat | |
| Host: | Rabbit | |
| Clonality: | Polyclonal | |
| Conjugate: | This Osteoactivin antibody is un-conjugated | |
| Application: | Western Blotting (WB), ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro)) | |

Product Details

| Immunogen: | KLH conjugated synthetic peptide derived from human GPNMB |
|-----------------------|---|
| Isotype: | IgG |
| Cross-Reactivity: | Human, Mouse, Rat |
| Predicted Reactivity: | Cow,Pig,Horse,Guinea Pig |
| Purification: | Purified by Protein A. |

Target Details

Target: Osteoactivin (GPNMB)

Target Details

| Alternative Name: | GPNMB (GPNMB Products) | |
|---------------------|---|--|
| Background: | Synonyms: NMB, HGFIN, Transmembrane glycoprotein NMB, Transmembrane glycoprotein | |
| | HGFIN, GPNMB, UNQ1725/PR09925 | |
| | Background: The protein encoded by this gene is a type I transmembrane glycoprotein which | |
| | shows homology to the pMEL17 precursor, a melanocyte-specific protein. GPNMB shows expression in the lowly metastatic human melanoma cell lines and xenografts but does not | |
| | show expression in the highly metastatic cell lines. GPNMB may be involved in growth delay | |
| | and reduction of metastatic potential. Two transcript variants encoding different isoforms have | |
| | been found for this gene. [provided by RefSeq]. | |
| Gene ID: | 10457 | |
| UniProt: | Q14956 | |
| Application Details | | |
| Application Notes: | WB 1:300-5000 | |
| | ELISA 1:500-1000 | |
| | IHC-P 1:200-400 | |
| | IHC-F 1:100-500 | |
| | IF(IHC-P) 1:50-200 | |
| | IF(IHC-F) 1:50-200 | |
| | IF(ICC) 1:50-200 | |
| Restrictions: | For Research Use only | |
| Handling | | |
| Format: | Liquid | |
| Concentration: | 1 μg/μL | |
| Buffer: | 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol. | |
| Preservative: | ProClin | |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be | |
| | handled by trained staff only. | |
| Storage: | 4 °C,-20 °C | |
| Storage Comment: | Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles. | |
| | | |

Expiry Date:

12 months

Publications

Product cited in:

Neal, Boyle, Budge, Safadi, Richardson: "The glycoprotein GPNMB attenuates astrocyte inflammatory responses through the CD44 receptor." in: **Journal of neuroinflammation**, Vol. 15, Issue 1, pp. 73, (2019) (PubMed).

Oyewumi, Manickavasagam, Novak, Wehrung, Paulic, Moussa, Sondag, Safadi: "Osteoactivin (GPNMB) ectodomain protein promotes growth and invasive behavior of human lung cancer cells." in: **Oncotarget**, Vol. 7, Issue 12, pp. 13932-44, (2017) (PubMed).

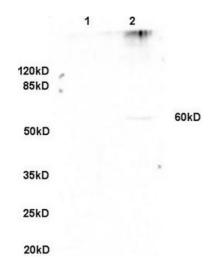
Arosarena, Dela Cadena, Denny, Bryant, Barr, Thorpe, Safadi: "Osteoactivin Promotes Migration of Oral Squamous Cell Carcinomas." in: **Journal of cellular physiology**, Vol. 231, Issue 8, pp. 1761-70, (2016) (PubMed).

Frara, Abdelmagid, Tytell, Amin, Popoff, Safadi, Barbe: "Growth and repair factors, osteoactivin, matrix metalloproteinase and heat shock protein 72, increase with resolution of inflammation in musculotendinous tissues in a rat model of repetitive grasping." in: **BMC musculoskeletal disorders**, Vol. 17, pp. 34, (2016) (PubMed).

Ruan, Li, Nie, Zhou, Zou: "Differential expression of glycoprotein non-metastatic melanoma protein B (GPNMB) involved in trichostatin A-induced apoptosis in gastric cancer." in: **International journal of clinical and experimental medicine**, Vol. 7, Issue 12, pp. 4857-66, (2015) (PubMed).

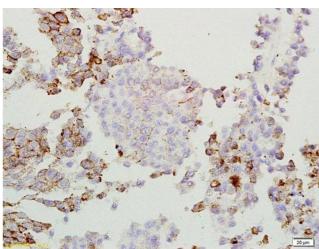
There are more publications referencing this product on: Product page

Validation report #100002 for Immunohistochemistry (Formalin-fixed Paraffin-embedded Sections) (IHC (fp))



SDS-PAGE

Image 1. Formalin-fixed and paraffin embedded rat lung labeled with Anti-GPNMB/Osteoactivin Polyclonal Antibody, Unconjugated (ABIN749093) at 1:200 followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Formalin-fixed and paraffin embedded rat lung labeled with Anti-GPNMB/Osteoactivin Polyclonal Antibody, Unconjugated at 1:200 followed by conjugation to the secondary antibody and DAB staining.

♦ Validation report #100002 for Immunohistochemistry (Formalin-fixed Paraffin-embedded Sections) (IHC (fp))



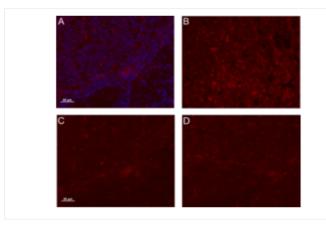
Successfully validated (Immunohistochemistry (Formalin-fixed Paraffin-embedded Sections) (IHC (fp)))

by Memorial Sloan-Kettering Cancer Center, Parada lab

Report Number: 100002

Date: Oct 15 2015

| Target: | Osteoactivin | |
|---------------------|---|--|
| Method validated: | Immunohistochemistry (Formalin-fixed Paraffin-embedded Sections) (IHC (fp)) | |
| Positive Control: | Tumor cell transplanted mouse brain was dissected | |
| Notes: | The staining pattern was as expected for Osteoactivin as membrane protein. | |
| Primary Antibody: | ABIN749093 | |
| Secondary Antibody: | Donkey-anti-Rabbit-Cy3 | |
| Isotype: | rabbit IgG | |
| Protocol: | Tumor cell transplanted mouse brain was dissected, fixed in 4% PFA for overnight, saturated in 30% sucrose, mounted in Cryo, and sectioned into 12µm sections. Immunostaining for Cryo Sections: | |
| | Dry slides at 50-55°C for 15-30 min (or RT for 30min) | |
| | Wash three times with PBS 5min (shake gently) | |
| | Block with 10% Normal Donkey Serum (NDS) at RM for 1hour | |
| | Incubate with primary antibody at 4°C overnight (Prepared in 2% NDS) | |
| | Rabbit-anti-Osteoactivin antibody (ABIN749093) diluted 1:50-1:400 | |
| | Wash three times with PBS 5min (shake gently) | |
| | Incubate with secondary antibody together with DAPI at RT for 1h (Prepared in 2% NDS), cover the chamber with foil | |
| | Donkey-anti-Rabbit-Cy3 | |
| | • DAPI 1:100 | |
| | Wash three times with PBS 5min (shake gently) | |
| | Add three drops of water-based Immu-mount | |
| | Cover with 24x60 cover glass | |
| | Imaging | |
| | Images were taken using a Zeiss Axio2-Imaging system, 20X-0.5NA-Dry Dye-1004-072 objective, DAPI and Cy3 channel. | |
| Experimental Notes: | ABIN749093 worked within the diution range 1:50 - 1:200; the antibody did not work well at a | |
| | 1:400 dilution. | |



Validation image no. 1 for anti-Osteoactivin (GPNMB) (AA 81-180) antibody (ABIN749093)

IF validation of osteoactivin antibody ABIN749093 on mouse brain tumor sections. A. ABIN749093 diluted 1:100 (red), DAPI counterstaining (blue). B. Dilution factor 1:50. C. Dilution factor 1:100. D. Dilution factor 1:200.