Product datasheet

Antiosteopontin antibody [EPR21139-316] ab214050

Overview

Product name
Anti-Osteopontin antibody [EPR21139-316]

Description
Rabbit monoclonal [EPR21139-316] to Osteopontin

Host species
Rabbit

Tested applications
Suitable for: IP, IHC-P, WB

Species reactivity
Reacts with: Human

Immunogen
Recombinant fragment within Human Osteopontin aa 1-300. The exact sequence is proprietary. Database link: P10451

Positive control

General notes
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

This product is a recombinant rabbit monoclonal antibody.

Properties

Form
Liquid

Storage instructions

Storage buffer
Preservative: 0.01% Sodium azide
Constituents: PBS, 40% Glycerol, 0.05% BSA

Purity
Protein A purified

Clonality
Monoclonal

Clone number
EPR21139-316

Isotype
IgG

Applications
Function
Binds tightly to hydroxyapatite. Appears to form an integral part of the mineralized matrix. Probably important to cell-matrix interaction. Acts as a cytokine involved in enhancing production of interferon-gamma and interleukin-12 and reducing production of interleukin-10 and is essential in the pathway that leads to type I immunity.

Tissue specificity
Bone. Found in plasma.

Sequence similarities
Belongs to the osteopontin family.

Post-translational modifications
Extensively phosphorylated on clustered serine residues. N- and O-glycosylated. Phosphorylation sites are present in the extracellular medium.

Cellular localization
Secreted.

Images

All lanes: Anti-Osteopontin antibody [EPR21139-316] (ab214050) at 1/1000 dilution

Lane 1: Human urine at 20 µg
Lane 2: Human fetal kidney lysate at 10 µg

Secondary
Lane 1: VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution
Lane 2: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 35 kDa
Observed band size: 45, 60, 70, 90 kDa

why is the actual band size different from the predicted?
Osteopontin was immunoprecipitated from 0.35 mg of human kidney lysate with ab214050 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab214050 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5,000 dilution

Lane 1: Human kidney lysate 10 µg (Input).
Lane 2: ab214050 IP in human kidney lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab214050 in human kidney lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 minutes.

The multiple bands observed are likely due to expression of different isoforms, as well as glycosylation (PMID: 8761944; PMID: 11375993; PMID: 8535240; PMID: 12890718).

Anti-Osteopontin antibody [EPR21139-316] (ab214050) at 1/1000 dilution + Human Osteopontin recombinant protein (aa17-300) produced in a mammalian expression at 0.01 µg

Secondary
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 35 kDa
Observed band size: 60-65 kDa why is the actual band size different from the predicted?

Exposure time: 26 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.
The his-tagged recombinant protein was produced in a mammalian expression system, thereby allowing it to be post-translationally modified.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).


Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10 minutes.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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