Anti-Osteocalcin antibody [OCG3] ab13420

Overview

Product name: Anti-Osteocalcin antibody [OCG3]
Description: Mouse monoclonal [OCG3] to Osteocalcin
Host species: Mouse
Tested applications: Suitable for: WB, IHC-Fr, IHC-P, Sandwich ELISA, ICC/IF
Species reactivity:
Reacts with: Rat, Sheep, Rabbit, Goat, Chicken, Cow, Dog, Human, Pig
Does not react with: Mouse
Immunogen: Full length protein corresponding to Cow Osteocalcin.
Database link: P02820
Epitope: Residues 21-31
Positive control: Normal bovine bone tissue
General notes:

Though we have found ab13420 does not react with mouse sample in our lab, there is a report from a reviewer that got positive result with mouse sample in IHC-Fr. However, this information needs to be confirmed further.

Although this antibody does work in IHC-P, we have found that ab13418 typically gives a more robust signal. Therefore, if you plan on using this antibody in IHC-P, we recommend ab13418 as an alternative option.

Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Preservative: 0.1% Sodium Azide
Constituents: 1% BSA, 10mM PBS, pH 7.4
Purity: Protein A purified
Clonality: Monoclonal
Clone number: OCG3
Isotype

IgG3

Applications

Our Abpromise guarantee covers the use of ab13420 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 - 10 µg/ml. Predicted molecular weight: 12 kDa. Use under reducing or non-reducing conditions.</td>
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<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 1 - 10 µg/ml.</td>
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<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 10 µg/ml. Enzymatic retrieval with Proteinase K is recommended.</td>
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<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use a concentration of 1 - 10 µg/ml. For use in sandwich ELISA with ab13421</td>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 21396708</td>
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</tbody>
</table>

Target

Function
Constitutes 1-2% of the total bone protein. It binds strongly to apatite and calcium.

Sequence similarities
Belongs to the osteocalcin/matrix Gla protein family. Contains 1 Gla (gamma-carboxy-glutamate) domain.

Post-translational modifications
Gamma-carboxyglutamate residues are formed by vitamin K dependent carboxylation. These residues are essential for the binding of calcium.

Cellular localization
Secreted.

Images

Detection of human osteocalcin by ab13420

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Osteocalcin antibody [OCG3] (ab13420)

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