Overview

Product name: Anti-4 Hydroxynonenal antibody

Description: Rabbit polyclonal to 4 Hydroxynonenal

Host species: Rabbit

Specificity: Specifically binds to HNE modified proteins.

Tested applications: Suitable for: IHC-Fr, WB, IHC-P, ELISA

Species reactivity: Reacts with: Species independent

Immunogen: HNE conjugated to BC.

General notes

Properties

Form: Liquid


Storage buffer: pH: 7.20
Preservative: 0.02% Sodium azide
Constituents: PBS, 0.0146% EDTA, 0.44% Sodium chloride, 50% Glycerol, 1.23% Sodium phosphate

Purification notes: This antibody was purified by an HNE modified Protein-Sepharose affinity column.

Clonality: Polyclonal

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab46545 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-Fr</td>
<td>★★★★☆</td>
<td>Use at an assay dependent concentration. PubMed: 24140865</td>
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</tbody>
</table>
Aldehydic products of lipid peroxidation, such as 4 hydroxynonenal (4 HNE), have been implicated in the etiology of pathological changes under oxidative stress as a key mediator of oxidative stress induced cell death. It is a stable product of lipid peroxidation, is proarrhythmic and may contribute to the cytotoxic effects of oxidative stress.

**Cellular localization**

Cytoplasmic

**Target**

**Relevance**

Aldehydic products of lipid peroxidation, such as 4 hydroxynonenal (4 HNE), have been implicated in the etiology of pathological changes under oxidative stress as a key mediator of oxidative stress induced cell death. It is a stable product of lipid peroxidation, is proarrhythmic and may contribute to the cytotoxic effects of oxidative stress.

**Cellular localization**

Cytoplasmic

**Images**

Frozen mouse cardiac tissue was homogenized with lysis buffer containing 50 mmol/L Tris-HCl (pH7.5), 5 mmol/L EDTA, 10 mmol/L EGTA, 1X cock tail protease inhibitor, 1X alkaline phosphatase inhibitor and 1X acid phosphatase inhibitor, 50 ug/ml phenylmenthysulfonyl fluoride and 1.23 mg/ml Chaps. Extracts were centrifuged at 12,000 rpm at 4°C for 15 minutes. 10 ug of the sample proteins was mixed with loading buffer (40 mmol/L Tris-HCl, pH 6.8, 1% SDS, 50 mmol/L DTT, 7.5% glycerol and 0.003% bromophenol blue and heated at 95°C for 5 minutes, and subjected to electrophoresis on a gradient gel (4% to 12%) at 120V. After electrophoresis, the protein was transferred to a PVDF membrane in a transfer buffer. The PVDF membrane was rinsed briefly in TBS buffer containing 50 mM Tris, 137 mM NaCl, pH 7.5 and blocked in buffer (5% milk with 0.5% BSA in TBST buffer (TBS buffer containing 0.1% tween 20) at room temperature for 1 hour. The membrane was then incubated with rabbit anti 4-hydroxy-2-noneal (4HNE) antibody at 1/3000 dilution at 4°C over night, followed by washing three times. The secondary antibody was incubated with the membrane for another one hour at room temperature. Finally the antigen-antibody complexes were visualized with use of an enhanced chemiluminescence kit. Anti-GAPDH (Abcam) was used for normalizing.

**Application**

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<tr>
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<tr>
<td>WB</td>
<td>🟢🟦🟦🟦彩虹</td>
<td>Use at an assay dependent concentration. Can be blocked with <strong>Hydroxynonal modified Bovine Serum Albumin</strong> (ab194193).</td>
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<tr>
<td>IHC-P</td>
<td>🟢🟦🟦🟦彩虹</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ELISA</td>
<td>🟢🟦🟦彩虹</td>
<td>1/4000 - 1/20000.</td>
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Immunohistochemical analysis of PFA-fixed paraffin-embedded rat femoral tissue, labeling 4-Hydroxynonenal with ab46545 at a dilution of 1/50 (incubated for 13 hours at 4°C).

Heat mediated antigen retrieval was performed with Tris-EDTA at pH 9.0. Permeabilization was via 0.025% Triton X-100. Blocking was with ab93695 ABC kit at 1% for 20 minutes at room temperature. ab93695 detection kit was used for signal amplification.

Immunohistochemical analysis of human uterine tissue with intrauterine growth restriction, staining 4 Hydroxynonenal with ab46545 at 1/200 dilution. Staining was detected using AEC.

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