# Anti-AGE antibody ab23722

**Product name**  
Anti-AGE antibody

**Description**  
Rabbit polyclonal to AGE

**Host species**  
Rabbit

**Tested applications**  
Suitable for: WB, ICC/IF, ELISA, IHC-Fr, IHC-P

**Species reactivity**  
Reacts with: Species independent

**Immunogen**  
Advanced Glycation End Products (BSA-AGE and HSA-AGE)

**Positive control**  
Human lens, arteriosclerotic plaques

**General notes**  
ab23722 is suitable for the detection of different AGE products in tissues, tissue extracts and body fluids.

## Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</td>
</tr>
</tbody>
</table>
| Storage buffer            | pH: 7.15  
Preservative: 0.05% Sodium azide  
Constituents: 0.134% PBS, 0.85% Sodium chloride |
| Purity                    | Protein A purified                                                      |
| Primary antibody notes    | ab23722 is suitable for the detection of different AGE products in tissues, tissue extracts and body fluids. |
| Clonality                 | Polyclonal                                                              |
| Isotype                   | IgG                                                                     |

## Applications

Our [Abpromise guarantee](#) covers the use of ab23722 in the following tested applications.

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

The non enzymatic reaction of reducing carbohydrates with lysine side chains and N terminal amino groups of macromolecules (amino acids, proteins, phospholipids and nucleic acids) is called the Maillard reaction or glycation. The latter products of this process, termed advanced glycation end products (AGEs), adversely affect the functional properties of proteins, lipids and DNA. In long lived tissue proteins, these chemical modifications accumulate with age and may contribute to the pathophysiology of ageing and long term complications of diabetes, atherosclerosis and renal failure.

**Cellular localization**

Cell Membrane and Secreted

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 2 - 5 µg/ml. Can be blocked with Native Cow AGE-BSA protein (ab129535).</td>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 5 µg/ml.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
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<tr>
<td>IHC-Fr</td>
<td>1/2000.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/10000. PubMed: 19223295</td>
<td></td>
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</table>

**Target**

**Relevance**

The non enzymatic reaction of reducing carbohydrates with lysine side chains and N terminal amino groups of macromolecules (amino acids, proteins, phospholipids and nucleic acids) is called the Maillard reaction or glycation. The latter products of this process, termed advanced glycation end products (AGEs), adversely affect the functional properties of proteins, lipids and DNA. In long lived tissue proteins, these chemical modifications accumulate with age and may contribute to the pathophysiology of ageing and long term complications of diabetes, atherosclerosis and renal failure.

**Cellular localization**

Cell Membrane and Secreted

**Images**

*Western blot - Anti-AGE antibody (ab23722)*

All lanes: Anti-AGE antibody (ab23722) at 1/1000 dilution

Lane 1: Mouse Brain Lysate (Brain and Hippocampus) at 25 µg

Lane 2: Glycated BSA at 15 µg

Secondary

All lanes: HRP-conjugated Goat anti-rabbit IgG at 1/800 dilution

Performed under reducing conditions.

12% SDS-PAGE gel run using denaturing conditions. Membrane blocked with 5% BSA for 30 minutes at room temperature. Primary antibody diluted in 5% BSA in TBS-T and incubated for 20 hours in a fridge.
ab23722 staining AGE in Rat aortic tissue sections showing the effects of diabetes and Ator on AGE expression by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formalin. Samples were incubated with primary antibody (1/10000) overnight at 4°C. A secondary antibody Fab fragment was used for 1 hour at room temperature.

The arrows indicated the sites of antibody staining. NC=normal controls, DM=streptozotocin-induced diabetic rats.

ICC/IF image of ab23722 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab23722, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
ab23722 (1µg/ml) staining AGE in human colon using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of both cell membrane and cytoplasm. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

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