### Anti AGEs Monoclonal Antibody (Clone No. 6D12), Peroxidase conjugated

<table>
<thead>
<tr>
<th>Primary Source</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoclonal</td>
<td>WB 0.25-5.0 µg/mL</td>
</tr>
<tr>
<td></td>
<td>HIC 2.0 µg/mL</td>
</tr>
<tr>
<td>Mouse</td>
<td>ICC Not tested</td>
</tr>
<tr>
<td>P3U1</td>
<td>ELISA 0.1-0.5 µg/mL</td>
</tr>
<tr>
<td>6D12</td>
<td>FCN Not tested</td>
</tr>
<tr>
<td>IgG3</td>
<td>Neutralization Not tested</td>
</tr>
<tr>
<td>Ascites</td>
<td>IP Not tested</td>
</tr>
</tbody>
</table>

**Purification notes**: ProteinG

**Cross Reactivity**: every animal species

**Storage**: Store below –20°C. Once thawed, store at 4°C. Repeated freeze-thaw cycles should be avoided.

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**AGEs (Advanced Glycation End Products)**

AGEs formation is initiated by the reaction of protein amino groups with glucose, leading to the formation of a Schiff base and its subsequent rearrangement products to form AGEs. AGEs accumulate in many tissues and organs, contributing to the development of diabetic complications, such as nephropathy, retinopathy, and neuropathy.

Recent studies have demonstrated the presence of AGEs-modified proteins in several human tissues, indicating their potential usefulness in histochemical identification and biochemical quantification of AGEs-modified proteins. For instance, staining of renal proximal tubules in patients with diabetic nephropathy using anti-AGEs antibody (6D12) showed the presence of AGEs-modified proteins.

**Immunohistochemical staining of renal proximal tubules and glomeruli in patients with diabetic nephropathy, using anti-AGEs antibody 6D12**

- **Primary Source**: Yamada, K. et al., American Journal of Pathology, Vol.147, 654-667, 1995

**Clinical nephrology, Vol.42, 354-361, 1994**


**American Journal of Pathology, Vol.147, 654-667, 1995**

**American Journal of Pathology, Vol.147, 654-667, 1995**

**J. Biol. Chem. 1991 Apr 25;266(12):7329-32.**

**J. Biol. Chem. 1996 Sep 7;271(18):10211-14.**

**Biochemistry. 1996 Jun 18;35(24):8075-83.**

**Lab Invest. 1996 Sep;76(3):325-38.**


**Br J Pharmacol. 2006 Apr;147(9):944-50.**

**WARNING AND PRECAUTION**

1. Not for diagnostic use. The safety and efficacy of product in diagnostic or other clinical uses has not been established.
2. Harmful by inhalation. In contact with skin and if swallowed. Do not breathe dust. Avoid contact with skin and eyes.
3. If contact with skin and eyes, wash all affected areas with large volumes of water if diluted solution to fresh air. In severe case obtain medical attention.
4. Wash hands thoroughly after handling the product.
5. Do not use the product if container is broken or some contaminants are detected.
6. When preparing the product, close the container, ensure it does not fall aside or down.
7. Dispose of the container and expended materials in accordance with federal, state, and local government regulations.
8. Do not use the container and accessories of the product for other purposes.

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**Note**

Reaction of protein amino groups with glucose leads, through the early products such as a Schiff base and Amadori rearrangement products, to the formation of AGEs. Recent immunological studies using anti-AGEs antibody (6D12) showed the presence of AGEs-modified proteins in several human tissues: (i) human lens (nondiabetic and noncataractous), (ii) renal proximal tubules in patients with diabetic nephropathy and chronic renal failure, (iii) diabetic retina, (iv) peripheral nerves of diabetic neuropathy, (v) atherosclerotic lesions of arterial walls, (vi) β2-microglobulin forming amyloid fibrils in patients with hemodialysis-related amyloidosis, (vii) senile plaques of patients with Alzheimer’s disease, (viii) the pentoneum of CAPD patients, (ix) skin elastin in actinic elastosis, and (x) ceroid/lipofuscin deposits. These results suggest a potential role of AGEs-modification in normal aging as well as age-enhanced disease processes. This antibody named as 6D12 has been used to demonstrate AGEs-modified proteins in these human tissues, indicating potential usefulness of this antibody for histochemical identification and biochemical quantification of AGEs-modified proteins.