7-1-14 Minatojimaminami-machi, Chuo-ku, Kobe, Japan 650-0047
http://www.transgenic.co.jp
Technical Support : techstaff@transgenic.co.jp

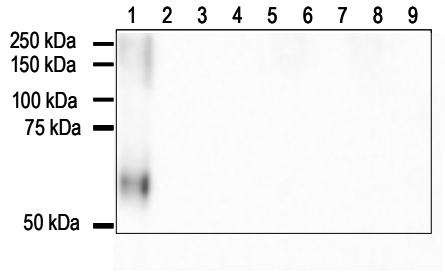
# KG132 Anti AGE-1 Monoclonal Antibody ( Clone No. 7C1)

| | |
|---|---|
| Primary Source | - |
| Type | Monoclonal |
| Immunogen | AGE1-BSA |
| Raised in | GANP mouse |
| Myeloma | P3U1 |
| Clone number | 7C1 |
| Isotype | IgG1 κ |
| Source | Serum Free Medium |
| Purification notes | ProteinG |
| Cross Reactivity | Every animal species |
| Concentration | 0.25 mg/mL |
| Contents (Volume) | 10 µg (40 µL/vial) |
| Label | Unlabeled |
| Buffer | PBS [containing 2 % Block Ace as a stabilizer, 0.1 %Proclin as a bacteriostat] |
| Storage | Store below –20 **℃**. Once thawed, store at 4 **℃**. Repeated freeze-thaw cycles should be avoided. |

| Application | |
|---|---|
| WB | 0.1 µg/mL |
| IHC | Not tested |
| ICC | Not tested |
| ELISA | 0.1 µg/mL |
| FCM | Not tested |
| Neutralization | Not tested |
| IP | Not tested |

This product is generated from GANP®

Anti AGE-1 Monoclonal Antibody (Clone No. 7C1)




Western blotting

1; AGE1-BSA (glucose-modified)
2; AGE2-BSA (glyceraldehyde-modified)
3; AGE3-BSA (glycolaldehyde-modified)
4; AGE4-BSA (methylglyoxal-modified)
5; AGE5-BSA (glyoxal-modified)
6; AGE6-BSA (3-DG-modified)
7; CML-BSA (carboxymethyllysine-modified)
8; CEL-BSA (carboxyethyllysine-modified)
9; BSA

Note

The products of the nonenzymatic glycation and oxidation of proteins, lipids and nucleic acids, the advanced glycation end-products (AGEs), accumulate in various pathological conditions, such as diabetes, inflammation, renal failure, and aging. AGEs accumulate at site of microvascular injury in diabetes, including the kidney, the retina, and within the vasculature. The enhanced formation of AGEs also exists in various disease, such as atherosclerosis, Alzheimer's disease, end-stage renal disease (ESRD), rheumatoid arthritis and liver cirrhosis.
AGEs can arise not only from glucose, but also from dicarbonyl compounds, short chain-reducing sugars and other metabolic pathways of glucose. It has been showed that glucose-derived AGEs (named AGE-1) causes apoptotic cell death and induces hyperfiltration and microalbuminuria by stimulating secretion of VEGF and MCP-1 proteins in the human mesangial cells. Therefore, AGE-1 may be involved in the pathogenesis of the early stage of diabetic nephropathy.
This antibody is specific to AGE-1 and will be useful to research for diabetes, complications of diabets.

AGEs (advanced glycation end-products; **終末糖化産物**) **はグルコースなどの還元糖とタンパク質、脂質、核酸といった生体分子との間の非酵素的糖化反応で生成され、糖尿病、炎症、腎不全といった疾患や老化に伴い蓄積します。**AGEs **は、糖尿病網膜症や腎症といった糖尿病血管合併症の発症・進展に強く関与しています。さらに** AGEs **は、動脈硬化症、アルツハイマー病、末期腎不全、関節リウマチ、肝硬変などの様々な疾患で増加します。**
AGEs **は、グルコースに由来するだけでなく、ジカルボニル化合物、糖の自動酸化物、糖代謝中間体などからも生成されます。グルコース由来** AGE-1 **は、ヒト腎メサンギウム細胞において、アポトーシスを誘導すること、**VEGF**及び**MCP-1**の発現を促進することが示され、**AGE-1 **が糸球体過剰濾過や微量アルブミン尿に関与し、糖尿病腎症発症との関係することが示唆されています。**
**本抗体は** AGE-1 **に特異的な抗体であり、糖尿病関連疾病などの研究にご使用下さい。**

Reference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|---|---|---|---|
| 1 | Takeuchi M. et al.: | Detection of noncarboxymethyllysine and carboxymethyllysine advanced glycation end products (AGE) in serum of diabetic patients. | Mol Med. 1999 Jun;5(6):393-405. |
| 2 | Takeuchi M. et al.: | Immunological evidence that non-carboxymethyllysine advanced glycation end-products are produced from short chain sugars and dicarbonyl compounds in vivo. | Mol Med. 2000 Feb;6(2):114-25. |
| 3 | Takeuchi M. et al.: | Immunological detection of a novel advanced glycation end-product. | Mol Med. 2001 Nov;7(11):783-91. |
| 4 | Yamagishi S. et al.: | Advanced glycation end product-induced apoptosis and overexpression of vascular endothelial growth factor and monocyte chemoattractant protein-1 in human-cultured mesangial cells. | J Biol Chem. 2002 Jun 7;277(23):20309-15. Epub 2002 Mar |


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 volume of water. If inhaled remove to fresh air. In severe case obtain medical attention.
4. Wash hand thoroughly after handling the product.
5. Do not use this product if container is broken or some contaminants are detected.
6. When preserving the product, Close the container, ensure it does not fall aside or down.
7. Dispose of the container and expired reagents in accordance with federal, state and local government regulations.
8. Do not use the container and accessories of the product for other purpose.

**取り扱い上の注意**

**この添付文書をよく読んでから使用して下さい。**

1. **本品は研究用試薬であり、医薬品その他の目的にはご使用になれません。**
2. **取り扱い中は皮膚、粘膜、着衣に触れたり、目に入らないように適切な措置を行って下さい。**
3. **試薬が誤って目や口に入った場合には、水で十分に洗い流すなどの応急処置を行い、必要があれば医師の手当を受けて下さい。**
4. **取り扱い後には手洗いを十分に行って下さい。**
5. **容器の破損、異物混入等異常が認められた物は使用しないで下さい。**
6. **試薬を保管する場合は、蓋をし、転倒落下防止を確実にし、指定の貯蔵方法で保管して下さい。**
7. **使用後の容器は、廃棄物に関する規定に従って処理して下さい。**
8. **容器、付属品等の他目的への転用は保証できません。**