

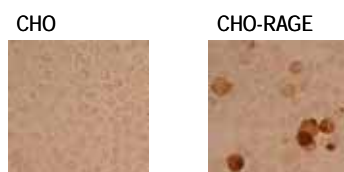


KG134 Anti Human RAGE Monoclonal Antibody (Clone No. 1C5)		Application	
Primary Source	HGNC:320	WB	0.1 µg/mL
Type	Monoclonal	IHC	Not tested
Immunogen	Recombinant protein of soluble form human RAGE	ICC	1.0 µg/mL
Raised in	GANP mouse	ELISA	0.01 µg/mL
Myeloma	P3U1	FCM	1.0 µg/mL
Clone number	1C5	Neutralization	Not tested
Isotype	IgG1 κ	IP	Not tested
Source	Serum Free Medium		
Purification notes	ProteinG		
Cross Reactivity	Not yet tested in other species.		
Concentration	0.25 mg/mL		
Contents (Volume)	50 µg (200 µL/vial)		
Label	Unlabeled		
Buffer	PBS [containing 2 % Block Ace as a stabilizer, 0.1 %Proclin as a bacteriostat]		
Storage	Store below -20 °C. Once thawed, store at 4 °C. Repeated freeze-thaw cycles should be avoided.		



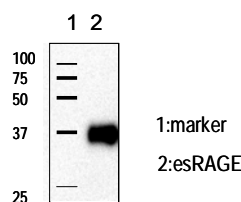
This product is generated from GANP®

Anti Human RAGE Monoclonal Antibody (Clone No. 1C5)



Sample: Human RAGE-transfected CHO cells

Immunocytochemistry



Western blotting

Note

RAGE (receptor for AGEs, advanced glycation end products) is an around 35 kDa multiligand receptor classified as an immunoglobulin superfamily cell surface molecule. RAGE is found in endothelium, smooth muscle cells, cardiac myocytes, neural tissue, and mononuclear cells and two major truncated forms of RAGE have been also identified (N-terminally truncated, C-terminally truncated). RAGE acts as a counter-receptor for not only AGEs, but also high-mobility group box1 (HMGB1), S100/calgranulins, and amyloid-β peptides. Intracellular signaling pathways induced by RAGE include the activation of Cdc42/Rac, MAP kinase, NF-κB. The C-terminally truncated soluble form of RAGE can bind ligands including AGEs and antagonize RAGE signaling in vitro and in vivo.

RAGE plays important role for inflammation, diabetes, diabetic complications such as nephropathy, vascular injury and Alzheimer's disease. Several clinical studies have demonstrated that the strong association of RAGE expression with malignant potential of various cancers. It has been showed that engagement of RAGE by HMGB1 plays an important role in regulating the tumor formation, growth, metastasis. It is also suggested that glyceraldehyde- and glycolaldehyde-derived AGEs may be significantly involved in the growth and invasion of melanoma through interactions with RAGE.

This antibody is specific to RAGE and will be useful to research for cancer, chronic diseases associated with aging and diabetic complications.

RAGE (receptor for AGEs, advanced glycation end products) は、イムノグロブリンスーパーファミリーに属する約 35 kDa の細胞表面マルチリガンド受容体です。RAGE は血管内皮細胞、平滑筋細胞、周皮細胞、腎メサングウム細胞などの血管構成細胞やマクロファージなどの細胞で発現し、N 末端欠損型及び C 末端欠損型も存在しています。RAGE は AGEs だけでなく、HMGB1、S100/calgranulins、βアミロイドなどの受容体として機能します。RAGE によって誘導される細胞内シグナルは、Cdc42/Rac、AP kinase、NF-κB などを活性化します。C 末端欠損 RAGE は可溶型であり、AGEs などのリガンドに結合し、細胞内への RAGE シグナルを抑制します。RAGE は、炎症、糖尿病、糖尿病合併症（腎症、血管障害）、アルツハイマー病などに関与しています。また様々な癌において、RAGE の発現とその悪性度の強い関連性が示唆されています。HMGB1/RAGE が腫瘍形成、成長、転移などに重要な役割を果たしていること、RAGE とグリセロアルデヒド由来 AGEs、グリコールアルデヒド由来 AGEs との結合が腫瘍の増殖、浸潤を促進することが示されています。本抗体は RAGE に特異的な抗体であり、癌、加齢に伴う疾患、糖尿病合併症などの研究にご利用下さい。

Reference

- Taguchi A. et al.: Blockade of RAGE-amphoterin signalling suppresses tumour growth and metastases. *Nature*. 2000 May 18;405(6784):354-60.
- Yonekura H. et al.: Novel splice variants of the receptor for advanced glycation end-products expressed in human vascular endothelial cells and pericytes, and their putative roles in diabetes-induced vascular injury. *Biochem J*. 2003 Mar 15;370(Pt 3):1097-109.
- Abe R. et al.: Regulation of human melanoma growth and metastasis by AGE-AGE receptor interactions. *J Invest Dermatol*. 2004 Feb;122(2):461-7.
- Riuzzi F. et al.: The amphoterin (HMGB1)/receptor for advanced glycation end products (RAGE) pair modulates myoblast proliferation, apoptosis, adhesiveness, migration, and invasiveness. Functional inactivation of RAGE in L6 myoblasts results in tumor formation in vivo. *J Biol Chem*. 2006 Mar 24;281(12):8242-53. Epub 2006 Jan 9.
- Koyama H. et al.: RAGE and soluble RAGE: potential therapeutic targets for cardiovascular diseases. *Mol Med*. 2007 Nov-Dec;13(11-12):625-35. Review.

WARNING AND PRECAUTION

- Not for diagnostic use. The safety and efficacy of product in diagnostic or other clinical uses has not been established.
- Harmful by inhalation, in contact with skin and if swallowed. Do not breathe dust. Avoid contact with skin and eyes.
- 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.
- Wash hand thoroughly after handling the product.
- Do not use this product if container is broken or some contaminants are detected.
- When preserving the product, Close the container, ensure it does not fall aside or down.
- Dispose of the container and expired reagents in accordance with federal, state and local government regulations.
- 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。
- 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。
 - 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。
 - 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。
 - 取り扱い後は手洗いを十分に行ってください。
 - 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。
 - 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。
 - 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。
 - 容器、付属品等の他目的への転用は保証できません。

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