

KS125 Anti Human CD54 (ICAM-1) Monoclonal Antibody (Clone No. YUK11)		Application	
Primary Source	HGNC:5344	WB	Not tested
Type	Monoclonal	IHC	Not tested
Immunogen	Human Cancer Cell Line	ICC	Not tested
Raised in	Mouse	ELISA	Not tested
Myeloma	P3U1	FCM	1.0-5.0 µg/mL
Clone number	YUK11	Neutralization	Not tested
Isotype	IgG2a, κ	IP	5.0-10.0 µg/mL
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.		

Note

CD54 (also known as ICAM-1: intercellular adhesion molecule-1) is a transmembrane glycoprotein of the immunoglobulin superfamily of adhesion molecules. CD54 expression is constitutive on many cell types. CD54 is a inducible ligand for LFA-1 (lymphocyte function associated antigen) and functions cell-to-cell interactions in inflammatory and immune responses.

Some studies have showed that the elevated expression of CD54 occurred in a variety of diseases, including autoimmune diseases, endocrine diseases, and some cancers as gastric, pancreatic, breast cancer. Surface expressed CD54 is apparently shed from the cells and then circulates as soluble ICAM-1 (sICAM-1). sICAM-1 can compete with cell surface CD54 to bind LFA-1 on T lymphocytes. Shedding of CD54 by circulating tumor cells may allow their escape from surveillance by cytotoxic T and natural killer cells, and promote metastasis. It has been suggested that sICAM-1 levels were found to be related tumor presence, clinical stages, and grade.

This antibody is specific to human CD54 and will be useful for FCM, immunoprecipitation.

CD54 (ICAM-1: Intercellular Adhesion Molecule 1) は、免疫グロブリンスーパーファミリーに属する接着分子、膜貫通型糖タンパク質で、多くの細胞において恒常的に発現しています。CD54 は細胞接着分子 LFA-1 (リンパ球機能関連抗原1) と結合し、炎症や免疫応答での細胞間相互作用に重要な役割を果たしています。

細胞表面に発現している CD54 は切断され、可溶性 ICAM-1 (sICAM-1) として血液内に分泌されますが、sICAM-1 も LFA-1 と結合し、CD54 と T リンパ球細胞膜上に存在する LFA-1 間の結合を阻害します。血管内を遊走する癌細胞から生じる sICAM-1 によって、癌細胞への細胞障害性 T 細胞、ナチュラルキラー細胞による攻撃が抑制され、癌転移が促進されると考えられています。CD54 は、自己免疫疾患、内分泌疾患、胃癌、膵臓癌、乳癌などで発現が上昇することが明らかとなっています。

本抗体はヒトCD54 に特異的な抗体であり、FCM、免疫沈降に使用できます。

Reference

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| 1 | Gho YS. et al.: Stimulation of tumor growth by human soluble intercellular adhesion molecule-1. | Cancer Res. 2001 May 15;61(10):4253-7. |
| 2 | Yu Y. et al.: The significance of serum soluble intercellular adhesion molecule 1 and transforming growth factor alpha in patients with nasopharyngeal carcinoma. | Arch Otolaryngol Head Neck Surg. 2004 Oct;130(10):1205-8 |
| 3 | Kang X. et al.: Clinical evaluation of serum concentrations of intercellular adhesion molecule-1 in patients with colorectal cancer. | World J Gastroenterol. 2005 Jul 21;11(27):4250-3. |
| 4 | Rosette C. et al.: Role of ICAM1 in invasion of human breast cancer cells. | Carcinogenesis. 2005 May;26(5):943-50. Epub 2005 Mar 17. |

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。
- 取り扱い後に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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