

KG137 Anti Human LGR4 (leucine-rich repeat-containing G protein-coupled receptor 4) Monoclonal Antibody (Clone No. 12H6)			
Primary Source	HGNC:13299	Application	
Type	Monoclonal	WB	0.5-1.0 µg/mL
Immunogen	plasmid vector	IHC	Not tested
Raised in	Mouse	ICC	Not tested
Myeloma	P3U1	ELISA	Not tested
Clone number	12H6	FCM	1.0-5.0 µg/mL
Isotype	IgG2ak	Neutralization	Not tested
Source	Serum Free Medium	IP	Not tested
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

LGR4, also known as GPR48, is a member of the leucine-rich repeat (LRR)-containing G protein-coupled receptor (LGR) family. LGR4 is composed of the extracellular domain containing 18 LRRs, the seven-transmembrane region. LGR4 is widely expressed in ovary, testis, adrenal, placenta, thymus, spinal cord, and thyroid in human.

The LGR4 knockout mice show intrauterine growth retardation, remarkable decreases in the kidney and liver weights, suggesting that LGR4 plays important role for embryonic growth, especially for kidney and liver development. A study, by use of the LGR4 hypomorphic mutant mice, showed that the homozygous male is infertile, showing morphologic abnormality in both the testes and the epididymides. Moreover, it has been demonstrated that up-regulation of LGR4 enhances carcinoma cell invasiveness and metastasis.

This antibody is specific to LGR4 and will be useful for research on embryonic growth, postnatal development, tumor invasiveness and metastasis.

LGR4 は、ロイシンリッチリピート (LRR) を持つGタンパク質共役型受容体 (LGR) ファミリーの一つです。LGR4 は、18 個の LRR を含む細胞外ドメインと7回膜貫通領域を持っています。ヒトでは、LGR4の発現が、卵巣、精巣、副腎、胎盤、胸腺、脊髄、甲状腺など多くの組織で確認されています。

LGR4 ノックアウトマウスでは、子宮内胎児発育遅延や肝臓、腎臓の重量の減少が見られ、胚成長や肝臓、腎臓の発達に重要な役割を果たしていることが明らかとなっています。LGR4 の発現を減少させたマウスでは、精巣及び副睾丸に異常を伴った不妊となることが示されています。また、LGR4 発現増加が、癌細胞の浸潤及び転移を促進することも示されています。

本抗体は、LGR4 に特異的な抗体であり、発生や組織の発達、癌の研究などにご利用下さい。

Reference

- | | | |
|-------------------------|---|--|
| 1 Hoshii T. et al.: | LGR4 Regulates the Postnatal Development and Integrity of Male Reproductive Tracts in Mice. | Biol Reprod.
2007 Feb;76(2):303-13. Epub 2006 Nov 1. |
| 2 Gao Y. et al.: | Up-regulation of GPR48 induced by down-regulation of p27Kip1 enhances carcinoma cell invasiveness and metastasis. | Cancer Res.
2006 Dec 15;66(24):11623-31. |
| 3 Mazerbourg S. et al.: | Leucine-rich repeat-containing, G protein-coupled receptor 4 null mice exhibit intrauterine growth retardation associated with embryonic and perinatal lethality. | Mol Endocrinol.
2004 Sep;18(9):2241-54. Epub 2004 Jun 10. |
| 4 Hsu SY. et al.: | Characterization of two LGR genes homologous to gonadotropin and thyrotropin receptors with extracellular leucine-rich repeats and a G protein-coupled, seven-transmembrane region. | Mol Endocrinol.
1998 Dec;12(12):1830-45. |

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。