

KG136 Anti Human TSHR(thyroid stimulating hormone receptor) Monoclonal Antibody (Clone No. 3A6)		Application	
Primary Source	HGNC:12373		
Type	Monoclonal	WB	Not tested
Immunogen	plasmid vector	IHC	Not tested
Raised in	Mouse	ICC	Not tested
Myeloma	P3U1	ELISA	Not tested
Clone number	3A6	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 . Once thawed, store at 4 . Repeated freeze-thaw cycles should be avoided.		

**Note**

The thyroid stimulating hormone receptor (TSHR), also known as LGR3, is a member of the leucine-rich repeat-containing G protein-coupled receptor (LGR) family. TSHR is expressed mainly in thyroid follicular cells and is activated by TSH, which regulates the growth and function of thyroid follicular cells.

Graves' disease is a common type of autoimmune thyroid disease, in that the generation of autoantibodies against the TSHR causes continuous stimulation of the thyroid gland hyperthyroidism. It has been demonstrated that TSHR are present on the surface of melanoma cells, through which TSH promotes melanoma growth. It has been also showed that TSH/TSHR regulates transcription of the TNF $\alpha$  gene, osteoclast formation and osteoporosis arise from TSHR deficiency.

This antibody is specific to TSHR and will be useful for research on autoimmune thyroid disease, osteoporosis, tumor such as melanoma.

甲状腺刺激ホルモン受容体 (TSHR) は、ロイシンリッチリピートを持つ、Gタンパク質共役型受容体 (LGR) ファミリーの一つで、LGR3とも呼ばれています。TSHR は、主に甲状腺濾胞細胞に発現し、甲状腺刺激ホルモン (TSH) により活性化され、濾胞細胞の増殖や機能を調節します。

バセドウ病は、自己免疫機構により甲状腺の活動性が亢進する疾患で、TSHR を自己抗原とする代表的な臓器特異的自己免疫疾患であり、その抗体が甲状腺細胞を刺激します。メラノーマにおいては、TSH/TSHR シグナルによって細胞増殖が促進されます。また破骨細胞前駆細胞において、TSH/TSHR は、TNF $\alpha$  の発現及び破骨細胞の増殖を抑制し、TSHR 欠損マウスにおいては骨粗しょう症に似た骨量減少を示すことが明らかとなっています。

本抗体は、TSHR に特異的な抗体であり、自己免疫疾患、骨粗しょう症、メラノーマなどの腫瘍の研究にご利用下さい。

**Reference**

1 Kaneda T. et al.:	An improved Graves' disease model established by using in vivo electroporation exhibited long-term immunity hyperthyroidism in BALB/c mice	Endocrinology. 2007 May;148(5):2335-44. Epub 2007 Jan 25.
2 Ellerhorst JA. et al.:	Human melanoma cells express functional receptors for thyroid-stimulating hormone.	Endocr Relat Cancer. 2006 Dec;13(4):1269-77.
3 Hase H. et al.:	TNF $\alpha$ mediates the skeletal effects of thyroid-stimulating hormone.	Proc Natl Acad Sci U S A. 2006 Aug 22;103(34):12849-54. Epub 2006 Aug 14.
4 Szkudlinski MW. et al	Thyroid-stimulating hormone and thyroid-stimulating hormone receptor structure-function relationships.	Physiol Rev. 2002 Apr;82(2):473-502. 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。