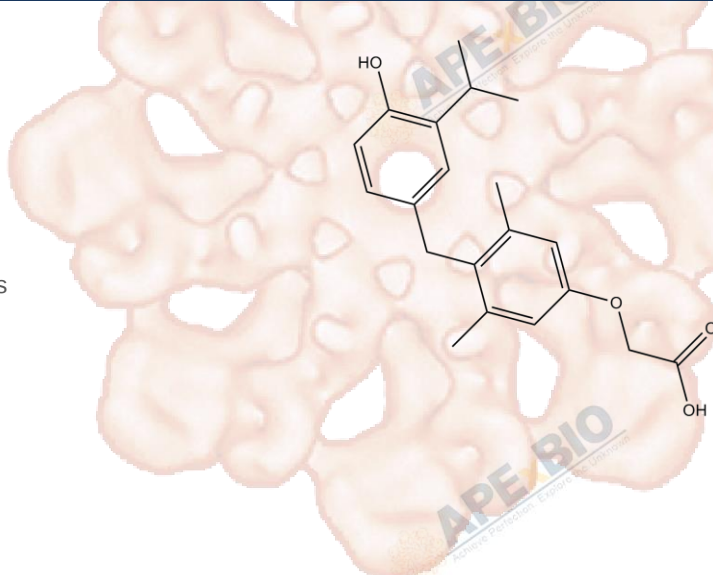


Product Data Sheet

Sobetirome

Cat. No.:	A3828
CAS No.:	211110-63-3
Formula:	C ₂₀ H ₂₄ O ₄
M.Wt:	328.4
Synonyms:	GC-1; QRX-431
Target:	Endocrinology and Hormones
Pathway:	Thyroid hormone Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥32.8 mg/mL in DMSO with gentle warming; insoluble in H₂O; ≥47.6 mg/mL in EtOH with ultrasonic

In Vitro

	Solvent	Mass Concentration	1mg	5mg	10mg
Preparing Stock Solutions		1 mM	3.0451 mL	15.2253 mL	30.4507 mL
		5 mM	0.6090 mL	3.0451 mL	6.0901 mL
		10 mM	0.3045 mL	1.5225 mL	3.0451 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Agonist of thyroid hormone receptor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Rat brown adipocytes.
Preparation method:	Soluble in DMSO > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	0.2-200 nM; 24 h.

	Applications:	In rat brown adipocytes, GC-1 increases Ucp1 mRNA expression and D2 activity stimulated by adrenergic. Also, GC-1 (10 nM) further increases cAMP production induced by NE or BRL 37344.
In Vivo	Animal experiment	
	Animal models:	Hypothyroid mice.
	Dosage form:	1.8-49.33 ng/g BW. day; 4 weeks of daily ip injection.
	Applications:	In hypothyroid mice, GC-1 increases heart rate and maximum speeds of contraction (dP/dtmax). GC-1 increases dP/dtmax and arterial pressure by 17% and 39%, respectively.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. McMillan, Jacob E., et al. "Multi-Generational Pharmacophore Modeling for Ligands to the Cholane Steroid-Recognition Site in the β 1 Modulatory Subunit of the BKCa Channel." Journal of Molecular Graphics and Modelling (2014).

See more customer validations on www.apexbt.com.

References

- [1]. Martinez de Mena R, Scanlan TS, Obregon MJ. The T3 receptor beta1 isoform regulates UCP1 and D2 deiodinase in rat brown adipocytes. Endocrinology, 2010, 151(10): 5074-5083.
- [2]. Trost SU, Swanson E, Gloss B, et al. The thyroid hormone receptor-beta-selective agonist GC-1 differentially affects plasma lipids and cardiac activity. Endocrinology, 2000, 141(9): 3057-3064.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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