

cTR α (1-408): sc-4087

BACKGROUND

Thyroid hormone nuclear receptors (TRs) are ligand dependent transcription factors which regulate growth, differentiation and development and represent members of the steroid/retinoic acid superfamily. The two genes encoding TRs identified to date, TR α and TR β , have been mapped to human chromosomes 17 and 3, respectively. TRs bind to thyroid hormone response elements (TREs) with half-site binding motifs in the orientation of palindrome, direct repeat, or inverted palindrome. The affinities of binding are both variable and influenced differentially by 3,3', 5-triiodo-L-thyronine (T3). Transcriptional regulation by TRs is also modulated by heterodimerization with TR nuclear accessory proteins, the most extensively characterized of which are the retinoid X receptors (RXR α , RXR β and RXR γ). To a certain extent, this activity is regulated by differential phosphorylation of TRs. Thus, not only are the biological activities of TRs regulated by heterodimerization with RXRs, but in addition, the gene regulatory activities of TRs are linked to other hormonal pathways.

REFERENCES

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SOURCE

cTR α (1-408) is expressed in *E. coli* as a 73 kDa tagged fusion protein corresponding to amino acids 1-408 representing full length thyroid hormone receptor (TR) of chicken origin.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

PRODUCT

cTR α (1-408) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 μ g purified protein in PBS containing 5mM DTT and 50% glycerol.

Also available as cTR α (1-408): sc-4087 WB for use as Western blotting control; supplied as 10 μ g protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

cTR α (1-408): sc-4087 is recommended as control for use with TransCruz Gel Supershift antibody sc-772 X. cTR α (1-408): sc-4087 WB is suitable as a Western blotting control for sc-772.

SELECT PRODUCT CITATIONS

1. Van Reeth, T., Gabant, P., Szpirer, C. and Szpirer, J. 2002. Stimulation of the α -fetoprotein promoter by unliganded thyroid hormone receptor in association with protein deacetylation. *Mol. Cell. Endocrinol.* 188: 99-109.
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RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.