Active Recombinant Human THRA, His-tagged

Cat. No. THRA-8493H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human THRA, fused with His tag, was expressed in Sf21 Cells.
Species	Human
Source	Sf21 Cells
Description	Nuclear receptors form the largest known family of transcription factors and have a crucial role in nearly all aspects of vertebrate development and adult physiology by transducing the effects of hormones into transcriptional responses. The family is defined by two domains: (a) the central, highly conserved, DNA-binding domain (DBD) of approximately 66 amino acids, and (b) the C-terminal, structurally conserved, ligand-binding domain (LBD) of approximately 250 amino acids . The amino-terminal regions are least conserved among nuclear receptor sequences. This domain is highly divergent between the TRalpha and TRbeta isoforms, which suggests differential roles in transcriptional regulation. In addition, alternative splicing of the TRbeta gene generates two isoforms, TRbeta1 and TRbeta2 with completely different amino-terminal domains. Unliganded TR inhibits the formation of a functional pre-initiation complex through direct interaction with TBP and transcription factor IIB. Additionally, in the absence of ligand, TR has been shown to repress transcription through recruitment of a corepressor complex, which also includes Sin3A and histone deacetylase. Ligand binding releases the corepressor complex and recruits a coactivator complex that includes multiple histone acetyltransferases, including a steroid receptor family coactivator, p300/CREB-binding protein–associated factor (PCAF), and CREB binding protein (CBP).

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Form	20 mM Tris-Cl, pH 7.9, 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA
Bio-activity	1 unit equals 1 ng. 20 ng is sufficient for an in vitro transcription assay and 100 ng is sufficient for a protein-protein interaction assay.
AA Sequence	MEQKPSKVEC GSDPEENSAR SPDGKRKRKN GQCSLKTSMS GYIPSYLDKD EQCVVCGDKA TGYHYRCITC EGCKGFFRRT IQKNLHPTYS CKYDSCCVID KITRNQCQLC RFKKCIAVGM AMDLVLDDSK RVAKRKLIEQ NRERRRKEEM IRSLQQRPEP TPEEWDLIHI ATEAHRSTNA QGSHWKQRRK FLPDDIGQSP IVSMPDGDKV DLEAFSEFTK IITPAITRVV DFAKKLPMFS ELPCEDQIIL LKGCCMEIMS LRAAVRYDPE SDTLTLSGEM AVKREQLKNG GLGVVSDAIF ELGKSLSAFN LDDTEVALLQ AVLLMSTDRS GLLCVDKIEK SQEAYLLAFE HYVNHRKHNI PHFWPKLLMK EREVQSSILY KGAAAEGRPG GSLGVHPEGQ QLLGMHVVQG PQVRQLEQQL GEAGSLQGPV LQHQSPKSPQ QRLLELLHRS GILHARAVCG EDDSSEADSP SSSEEEPEVC EDLAGNAASP
Purity	>95% as determined by SDS-PAGE
Storage	-80 °C
Concentration	500 μg/ml
Shipping	Dry Ice

GENE INFORMATION

Gene Name	THRA thyroid hormone receptor, alpha [Homo sapiens]
Official Symbol	THRA
Synonyms	THRA; AR7; EAR7; ERBA; CHNG6; ERBA1; NR1A1; THRA1; THRA2; ERB-T-1; c-

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	ERBA-1; thyroid hormone receptor, alpha; EAR-7; c-erbA-alpha; ERBA-related 7; V-erbA-related protein 7; triiodothyronine receptor; nuclear receptor subfamily 1 group A member 1; thyroid normone nuclear receptor alpha variant 1; thyroid hormone receptor, alpha (erythroblastic leukemia viral (v-erb-a) oncogene homolog, avian)
Gene ID	7067
mRNA Refseq	NM_003250
Protein Refseq	NP_003241
MIM	190120
UniProt ID	P10827
Chromosome Location	17q11.2
Pathway	Endochondral Ossification, organism-specific biosystem; Gene Expression, organism-specific biosystem; Neuroactive ligand-receptor interaction, organism-specific biosystem
Function	TBP-class protein binding; chromatin DNA binding; metal ion binding

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