Active Recombinant Human vitamin D receptor

Cat. No. VDR-1204H **Lot. No.** (See product label)

SPECIFICATION

Species	Human
Source	E.coli
ProteinLength	118-427 aa
Description	The vitamin D endocrine system is critical for the proper development and maintenance of mineral ion homeostasis and skeletal integrity. Beyond these classical roles, recent evidence suggests that the bioactive metabolite of vitamin D, 1, 2, 5- dihydroxyvitamin D3, functions in diverse physiological processes, such as hair follicle cycling, blood pressure regulation, and mammary gland development. The biological effects of 1, 2, 5-(OH)2D3 are mediated through the vitamin D receptor (VDR), a member of the nuclear receptor superfamily of ligand-activated transcription factors. The cellular effects of VDR signaling include growth arrest, differentiation and/or induction of apoptosis. VDR heterodimerizes with RXR and the liganded VDR-RXR heterodimer binds with high affinity to vitamin D response elements (VDREs) in the promoters of target genes. In addition, several nuclear receptor coactivators (SRC-1, DRIP) have been shown to interact with VDR and potentiate its transcriptional activity. In addition to treating disorders of mineral metabolism and diseases of the skeleton, such as rickets, osteoporosis, and renal osteodystrophy, VDR and 1, 2, 5-(OH)2D3 have significant therapeutic potential for pathologies such as cancer, autoimmune syndromes, and psoriasis.
Form	Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT

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	and 20% glycerol.
Purity	>95% by SDS-PAGE.
Activity	1-5 ng are sufficient for a gel mobility shift assay in a 20 µl reaction, 50-100 ng are sufficient for reconstituted transcription assay and 100-200 ng are sufficient for a protein-protein interaction assay or an acetylation assay.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	VDR vitamin D (1,25-dihydroxyvitamin D3) receptor [Homo sapiens]
Synonyms	VDR; vitamin D (1,25-dihydroxyvitamin D3) receptor; NR1I1; 1,25-dihydroxyvitamin D3 receptor; Nuclear receptor subfamily 1 group I member 1
Gene ID	7421
mRNA Refseq	NM_000376
Protein Refseq	NP_000367
MIM	601769
UniProt ID	P11473
Chromosome Location	12q12-q14

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Pathway	Gene Expression
Function	metal ion binding; protein binding; retinoid X receptor binding; sequence-specific DNA binding; steroid hormone receptor activity; transcription factor activity; vitamin D response element binding; vitamin D3 receptor activity; zinc ion binding

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