Vitamin D Receptor Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	Vitamin D Receptor (VDR), Blocking Peptide
Full Product Name	Vitamin D Receptor Blocking Peptide
Product Gene Name	VDR blocking peptide
Product Synonym Names	1 25 dihydroxyvitamin D3 receptor; 1; 1, 25 dihydroxyvitamin D3 receptor; 1, 25-dihydroxyvitamin D3 receptor; 25-dihydroxyvitamin D3 receptor; Member 1; NR1I1; Nuclear receptor subfamily 1 group I member 1; PPP1R163; Protein phosphatase 1, regulatory subunit 163; VDR; VDR_HUMAN; Vitamin D (1, 25-dihydroxyvitamin D3) receptor; Vitamin D hormone receptor; Vitamin D nuclear receptor variant 1; Vitamin D receptor; Vitamin D3 receptor
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	Vitamin D Receptor peptide (MBS9617310) is used for blocking the activity of Vitamin D Receptor antibody (MBS9601767)
Molecular Weight	48,289 Da
Chromosome Location	Chromosome: 12; NC_000012.11 (48235320..48298814, complement). Location: 12q13.11
OMIM	277440
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for VDR blocking peptide	Blocking/Control
Related Product Information for VDR blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of VDR blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for VDR purchase	MBS9617310 is a blocking peptide targeting VDR. Also known as Vitamin D Receptor Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for VDR. It may not necessarily be applicable to this product.

NCBI GI #	4507883
NCBI GeneID	7421

NCBI Accession #	NP_000367.1
UniProt Primary Accession #	P11473
UniProt Secondary Accession #	Q5PSV3; B2R5Q1; G3V1V9
UniProt Related Accession #	P11473
GenBank Nucleotide #	NM_000376.2
NCBI Official Full Name	vitamin D3 receptor isoform VDRA
NCBI Official Synonym Full Names	vitamin D (1,25- dihydroxyvitamin D3) receptor
NCBI Official Symbol	VDR
NCBI Official Synonym Symbols	NR1I1
UniProt Protein Name	Vitamin D3 receptor
UniProt Synonym Protein Names	1,25-dihydroxyvitamin D3 receptor; Nuclear receptor subfamily 1 group I member 1
Protein Family	Vitamin D3 receptor
UniProt Gene Name	VDR
UniProt Synonym Gene Names	NR1I1; VDR
UniProt Entry Name	VDR_HUMAN
NCBI Protein Information	vitamin D3 receptor; 1,25-dihydroxyvitamin D3 receptor; vitamin D nuclear receptor variant 1; nuclear receptor subfamily 1 group I member 1
NCBI Summary for VDR	This gene encodes the nuclear hormone receptor for vitamin D3. This receptor also functions as a receptor for the secondary bile acid lithocholic acid. The receptor belongs to the family of trans-acting transcriptional regulatory factors and shows sequence similarity to the steroid and thyroid hormone receptors. Downstream targets of this nuclear hormone receptor are principally involved in mineral metabolism though the receptor regulates a variety of other metabolic pathways, such as those involved in the immune response and cancer. Mutations in this gene are associated with type II vitamin D-resistant rickets. A single nucleotide polymorphism in the initiation codon results in an alternate translation start site three codons downstream. Alternative splicing results in multiple transcript variants encoding different proteins. [provided by RefSeq, Feb 2011]

UniProt Comments for VDR	VDR: Nuclear hormone receptor. Transcription factor that mediates the action of vitamin D3 by controlling the expression of hormone sensitive genes. Regulates transcription of hormone sensitive genes via its association with the WINAC complex, a chromatin-remodeling complex. Recruited to promoters via its interaction with the WINAC complex subunit BAZ1B/WSTF, which mediates the interaction with acetylated histones, an essential step for VDR-promoter association. Plays a central role in calcium homeostasis. Defects in VDR are the cause of rickets vitamin D- dependent type 2A (VDDR2A). A disorder of vitamin D metabolism resulting in severe rickets, hypocalcemia and secondary hyperparathyroidism. Most patients have total alopecia in addition to rickets. Belongs to the nuclear hormone receptor family. NR1 subfamily. Protein type: Nuclear receptor; DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 12q13.11 Cellular Component: nucleoplasm; nucleus; receptor complex Molecular Function: retinoid X receptor binding; protein binding; DNA binding; zinc ion binding; sequence-specific DNA binding; steroid hormone receptor activity; vitamin D3 receptor activity; transcription factor activity Biological Process: lactation; transcription initiation from RNA polymerase II promoter; cell morphogenesis; positive regulation of apoptosis involved in mammary gland involution; negative regulation of transcription from RNA polymerase II promoter; decidualization; signal transduction; intestinal absorption; cellular calcium ion homeostasis; negative regulation of cell proliferation; calcium ion transport; positive regulation of transcription from RNA polymerase II promoter; steroid hormone mediated signaling; gene expression; negative regulation of transcription, DNA-dependent; skeletal development; positive regulation of keratinocyte differentiation Disease: Vitamin D-dependent Rickets, Type 2a; Osteoporosis
Research Articles on VDR	**1.** Expression of TauT is differentially regulated by Vitamin D(3) and retinoic acid via formation of VDR and RXR complexes in the nuclei in a cell type-dependent manner.
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