Rat Vitamin D3 receptor(VDR) ELISA kit

Product Code	CSB-EL025832RA
Abbreviation	VDR
Protein Biological Process 1	Transcription/Transcription regulation
Target Name	vitamin D (1,25- dihydroxyvitamin D3) receptor
Uniprot No.	P13053
Alias	NR1I1, vitamin D (1,25-dihydroxyvitamin D3) receptor
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Protein Biological Process 3	Transcription
Sample Types	serum, plasma, tissue homogenates
Detection Range	31.2 pg/mL-2000 pg/mL
Sensitivity	7.8 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cancer
Gene Names	Vdr
Tag Info	quantitative
Protein Description	Sandwich

Description

The Rat Vitamin D3 receptor (VDR) ELISA kit is a powerful tool for researchers in the field of metabolism?immune response?cancer research. This quantitative assay measures the concentration of Vitamin D3 receptor (VDR) in serum, plasma, and tissue homogenates from Rattus norvegicus (Rat) samples.

With a detection range of 31.2 pg/mL to 2000 pg/mL and a sensitivity of 7.8 pg/mL, this ELISA kit provides accurate and reliable results for your research needs. The assay time ranges from 1 to 5 hours, and the sample volume required is 50-100ul.

The sandwich measurement technique used in this kit ensures high specificity and sensitivity, providing you with confidence in your results. The detection wavelength of 450 nm ensures accurate measurements for each sample. With

more than 3 citations to its name, this ELISA kit has been validated by researchers around the world.

Target Details

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 the same protein.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of rat VDR in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	89
	Range %	84-93
1:2	Average %	101
	Range %	98-105
1:4	Average %	96
	Range %	93-99
1:8	Average %	105
	Range %	101-109

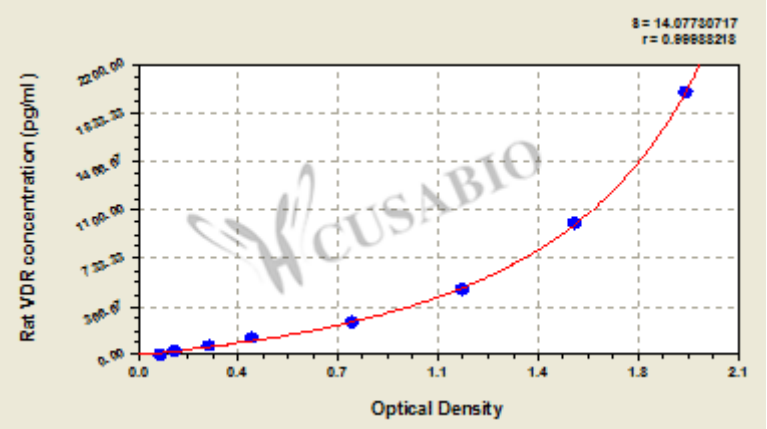
Recovery

The recovery of rat VDR spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	84	81-89
EDTA plasma (n=4)	95	91-99

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
2000	1.927	1.958	1.943	1.859
1000	1.537	1.568	1.553	1.469
500	1.176	1.131	1.154	1.070
250	0.789	0.742	0.766	0.682
125	0.417	0.401	0.409	0.325
62.5	0.253	0.264	0.259	0.175
31.2	0.134	0.138	0.136	0.052
0	0.087	0.081	0.084	?

Msds

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