## Recombinant Mouse VDR/NR1I1 Protein (His Tag)

## Catalog Number: PKSM040354

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse VDR/NR111 protein Met1-Ser422, with an C-
	terminal His
Calculated MW	49.2 kDa
Observed MW	55 kDa
Accession	P48281
Bio-activity	Not validated for activity
Properties	
Purity	> 86 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% glycerol
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	
	KDa M
	116
	66.2
	45.0

45.0	
35.0	-
25.0	-
18.4 14.4	=

> 86 % as determined by reducing SDS-PAGE.

## Background

## **Elabscience**®

VDR (vitamin D(1,25- dihydroxyvitamin D3)receptor), also known as NR111, belongs to the NR11 family, NR1 subfamily. It is composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain. Vitamin D receptors (VDRs) are members of the NR11 family, which also includes pregnane X (PXR) and constitutive androstane (CAR) receptors, that form heterodimers with members of the retinoid X receptor family. VDRs repress expression of 1alpha-hydroxylase (the proximal activator of 1,25(OH)2D3) and induce expression of the 1,25(OH) 2D3 inactivating enzyme CYP24. Also, it has recently been identified as an additional bile acid receptor alongside FXR and may function to protect gut against the toxic and carcinogenic effects of these endobiotics. VDR is expressed in the intestine, thyroid and kidney and has a vital role in calcium homeostasis. It is the nuclear hormone receptor, also called transcription factor that mediates the action of vitamin D3. Inherited mutations in the VDR gene leads to rickets.