# Product Data Sheet

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| Product Name: | vitamin D binding protein precursor (353-363) [Homo sapiens] |
| Cat. No.: | GP10001 |

## Chemical Properties

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|---|---|---|---|
| Cas. No. | | | |
| SMILES | NC(CCCNC(N)=N)C(NC(C(C)O)C(NC(CC1=CN=CN1)C(NC(CC(C)C)C(N(CCC2)C2C(NC(CCC(O)=O)C(NC(C(C)C)C(NC(CC3=CC=CC=C3)( | | |
| Formula | $C_{61}H_{99}N_{17}O_{16}$ | M.Wt | |
| Solubility | ≥ 132.7mg/mL in DMSO | Storage | |
| General tips | For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be | | |
| Shipping Condition | Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request. | | |
| Structure | vitamin D binding protein precursor (353-363) [Homo sapiens] | | |

## Background

Human vitamin D-binding protein (hDBP), also known as Gcglobulin, is an abundant, multifunctional, and highly polymorphic serum glycoprotein synthesized by the liver[1]. DBP is the major serum transport protein for the vitamin D sterols[2], binds and sequesters monomers of actin with high affinity[3, 4], and has been identified on the surface of a variety of cell types including B-lymphocytes[5], subpopulations of T-lymphocytes[6], and the cytotrophoblasts of the placenta[7].

DBP is a secreted protein and would therefore be predicted to have a signal sequence. The amino-terminus of the mature serum protein was established by aligning the sequence predicted by the cDNA to a sequenced amino-terminal hDBP peptide[8].

References:
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3.Cooke, N. E., J. Walgate, and J. G. Haddad. 1979. Human serum binding protein for vitamin D and its metabolites. I. Physicochemical and immunological identification in human tissues. J. Biol. Chem. 254: 5965-5971.
4.Van Baelen, H., R. Bouillon, and P. DeMoor. 1980. Vitamin D binding protein (Gc-Globulin) binds actin. J. Biol. Chem. 255:2270-2272.
5.Petrini, M., D. L. Emerson, and R. M. Galbraith. 1983. Linkage between surface immunoglobulin and cytoskeleton of B lymphocytes may involve Gc protein. Nature (Lond.). 306:73-74.
6.Petrini, M., R. M. Galbraith, D. L. Emerson, A. E. Nel, and P. Arnaud. 1985. Structural studies of T lymphocyte Fc receptors. J. Biol. Chem. 260:1804-1810.
7.Nestler, J. E., E. Lange, J. McLeod, H. J. Kliman, and J. F. Strauss. 1985. Detection of vitamin D binding protein (DBP) in human cytotrophoblasts. Seventh Annual American Societyfor Bone and Mineral Research. Wash. DC. 266a. (Abstr.).
8.Svasti, J., A. Kurosky, A. Bennett, and B. H. Bowman. 1979. Molecular basis for the three major forms of human serum vitamin D binding protein (group specific component). Biochemistry. 18:1611-1617.


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