

Product specification sheet
GC-Globulin, Human Plasma

Cat # GCGL15-N

GC-Globulin, Human Plasma, Mixed Type

Size: 1 mg

Vitamin D-binding protein, also known as gc-globulin (group-specific component), is a protein that in humans is encoded by the GC gene.

Vitamin D-binding protein belongs to the albumin gene family, together with human serum albumin and alpha-fetoprotein. It is a multifunctional protein found in plasma, ascetic fluid, cerebrospinal fluid and on the surface of many cell types. It binds to vitamin D and its plasma metabolites and transports them to target tissues.

Human GC is a glycosylated alpha-globulin, ~58 kDa in size. Its 458 amino acids are coded for by 1690 nucleotides on chromosome 4 (4q11–q13). The primary structure contains 28 cysteine residues forming multiple disulfide bonds. GC contains 3 domains. Domain 1 is composed of 10 alpha helices, domain 2 of 9, and domain 3 of 4

It is present in plasma at levels of 20-55 mg/100 ml. It may also play an important role in actin homeostasis since it has been shown to bind monomeric actin with high affinity. GC-globulin also binds membranes of both circulating B and T lymphocytes. Clinically, concentrations are reduced in patients with severe liver diseases. GC-globulin may also play an important role in the mechanism of the osteomalacia that occurs with Itai-Itai disease.

As Gc protein-derived macrophage activating factor it is a Macrophage Activating Factor (MAF) that has been tested for use as a cancer treatment that would activate macrophages against cancer cells.

Synonyms: Gc-globulin, Group-specific component, DBP, VDB

Source and Form:



GC globulin was purified from human plasma (>95%) using proprietary techniques. It is supplied lyophilized in in 20 mM NaH₂PO₄, 0.15 M NaCl pH 7.4.

Store lyophilized at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstitute in PBS or water. Reconstituted protein can be stored at 4°C for a limited period of time. The lyophilized protein remains stable for up to 1 year

when stored at -20°C

Specificity: Shown to be non reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.

Suggested Applications:

Antigen in ELISA and Western blots

Reference: Lee, W.M. et al. (1987). Hepatology, 7, 825. Teranishi, H. et al. (1983). Toxicol. Lett. 15, 7.

All items are for in vitro research use only.

Related items

APOJ15-N-10	Apolipoprotein J, Human Plasma
ATH35-N-100	Antithrombin III, Human Plasma, purified
B2GP15-N-25	Purified human plasma beta-2 glycoprotein (B2-GP or Apolipoprotein H/ApoH) protein for ELISA
C1E15-N	C1 Esterase Inhibitor, Human Plasma
CMIC15-N	Chylomicrons, Human Plasma
FIBN11-A	Anti-Human Plasma Fibrinogen IgG
GCGL15-N	GC-Globulin, Human Plasma, Mixed Type
HBA26-N-100	Hepatitis Surface Antigen subtype Ad (HBsAg Ad), Native (human plasma) purified
HBA28-N-100	Hepatitis Surface Antigen subtype Ay (HBsAg Ay), Native (human plasma) purified
HDLD31-N-1	Human Plasma high density lipoprotein (HDL) native, purified
HGLB18-C	Haptoglobin Human Plasma protein control for WB
HGLB18-N	Haptoglobin, Human Plasma, Mixed Type
HGLB20-N	Haptoglobin 1-1 (Hp1-1), Human Plasma (>95%, 86 kda)
HGLB21-N	Haptoglobin 2-2 (Hp2-2), Human Plasma (>95%, 170-900 kda)
HPEX15-N-100	Hemopexin, Human Plasma
A2MG15-N	Alpha 2-Macroglobulin (A2M), Human Plasma
HPEX15-N-100	Hemopexin, Human Plasma
KAL11-A	Anti-Human Plasma Kallikrein IgG
KAL15-N-50	Kallikrein, Human Plasma
KINH15-N-50	Kininogen, HMW, Human Plasma
KINL15-N-50	Kininogen, LMW, Human Plasma

GCGL15-N

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