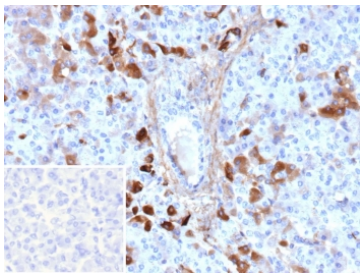
GC Antibody / Serum Gc-Globulin Antibody [clone VDBP/9980] (V5711)

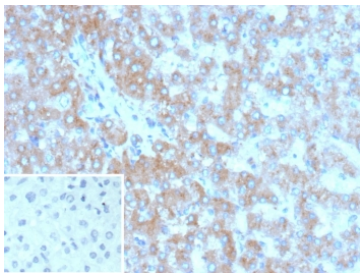
Catalog No.	Formulation	Size
V5711-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5711-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5711SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG, kappa
Clone Name	VDBP/9980
Purity	Protein A/G affinity
UniProt	P02774
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This GC Antibody / Serum Gc-Globulin Antibody is available for research use only.



GC Antibody Pancreas IHC. Immunohistochemistry analysis of FFPE human pancreas tissue stained with GC Antibody / Serum Gc-Globulin Antibody clone VDBP/9980 demonstrates strong cytoplasmic HRP-DAB brown staining within pancreatic epithelial and endocrine-associated cellular populations, consistent with the role of Group-specific component / GC as a circulating plasma carrier protein involved in vitamin D transport and systemic metabolic homeostasis. The observed staining pattern aligns with the secretory biology of this serum Gc-globulin within endocrine-associated tissue compartments. The negative control inset using PBS in place of primary antibody demonstrates minimal background secondary antibody binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



GC Antibody Liver IHC. Immunohistochemistry analysis of FFPE human liver tissue stained with GC Antibody / Serum Gc-Globulin Antibody clone VDBP/9980 demonstrates diffuse granular cytoplasmic HRP-DAB brown staining throughout hepatocyte-associated cellular populations, consistent with the role of Group-specific component / GC as a liver-derived plasma carrier protein involved in circulating vitamin D metabolite transport and systemic endocrine homeostasis. The widespread hepatic staining profile aligns with the established secretory biology of this abundant serum Gc-globulin. The negative control inset using PBS in place of primary antibody demonstrates minimal background secondary antibody binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Group-specific component (GC), also known as Vitamin D binding protein (VDBP) or Gc-globulin, is a circulating plasma carrier protein involved in vitamin D metabolite transport, extracellular actin scavenging, and systemic endocrine homeostasis. The GC Antibody / Serum Gc-Globulin Antibody clone VDBP/9980 is designed for detection of GC expression in studies involving plasma transport physiology, hepatic secretory protein biology, endocrine metabolism, and circulating carrier-associated regulatory pathways.

GC is encoded by the GC gene on chromosome 4q13 and is synthesized predominantly by hepatocytes before secretion into plasma and extracellular fluids. The protein functions as the principal serum carrier for vitamin D and its metabolites, regulating systemic transport and bioavailability of endocrine signaling molecules associated with calcium homeostasis and metabolic regulation. Because GC circulates at high concentrations in serum, the protein serves as a major component of extracellular transport physiology and systemic metabolic homeostasis pathways.

Beyond vitamin D transport, GC participates in extracellular actin scavenging mechanisms that help maintain vascular and tissue integrity following cellular injury and inflammatory stress. The protein may also contribute to macrophage-associated immune signaling and inflammatory response pathways. Altered GC abundance has been associated with liver disease, kidney dysfunction, inflammatory disorders, metabolic abnormalities, and endocrine-associated physiologic imbalance.

GC has attracted substantial research interest across hepatology, endocrinology, nephrology, and clinical pathology due to its role as a liver-derived plasma transport protein. Because circulating GC levels may influence systemic vitamin D bioavailability and transport-associated endocrine signaling, the protein is frequently studied alongside markers of hepatic secretory function, metabolic regulation, and extracellular transport-associated physiology.

Immunohistochemical analysis using GC antibodies commonly demonstrates cytoplasmic staining patterns within hepatocyte-associated and epithelial tissue compartments consistent with the secretory biology of this circulating serum globulin. Expression within pancreatic and hepatic tissue environments further supports the role of GC in endocrine-associated metabolic physiology and systemic transport pathways.

GC continues to serve as an important target in studies involving plasma carrier proteins, serum transport physiology, vitamin D homeostasis, hepatic secretory biology, and endocrine metabolism. For broader analysis of vitamin D transport-associated endocrine signaling pathways, see our VDBP Antibody / Endocrine Vitamin D Transport Protein Antibody.

Application Notes

Optimal dilution of the GC Antibody / Serum Gc-Globulin Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-200 from human Vitamin D binding protein was used as the immunogen for the GC antibody.

Storage

Aliquot the GC antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

GC antibody, Group-specific component antibody, Gc-globulin antibody, Plasma carrier protein antibody, Serum transport protein antibody

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