PRODUCT INFORMATION

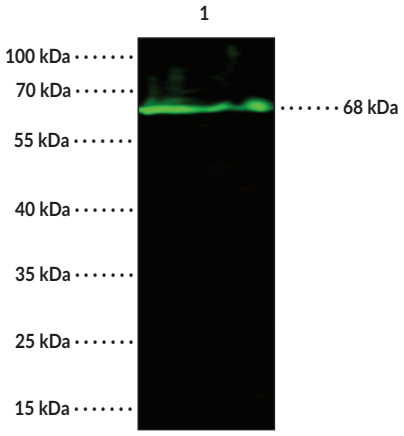
Albumin Rabbit Monoclonal Antibody (Clone 101)

Item No. 37016

Overview and Properties

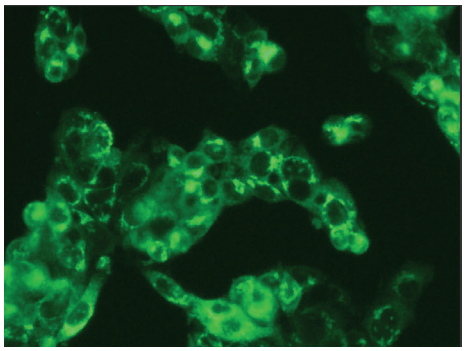
Contents:	This vial contains 50 or 100 µl of protein A-affinity purified monoclonal antibody.
Synonym:	HSA
Immunogen:	Human serum albumin
Cross Reactivity:	(+) Albumin
Species Reactivity:	(+) Human; (-) Bovine
MW:	68 kDa
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	101
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, Flow cytometry (FC), Immunocytochemistry (ICC), Immunofluorescence (IF), Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution is 1:5,000-1:10,000 for ELISA, 1:20-1:100 for ICC and IF, 0.5-2 µL/mg of lysate for IP, and 1:500-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HepG2 whole cell lysate (30 µg)

Albumin Rabbit Monoclonal Antibody at a 1:500 dilution. A secondary goat anti-rabbit IgG H&L (Dylight™ 800) was used at 1:10,000 dilution. Performed under reducing conditions.



Immunofluorescence labeling of albumin in HepG2 cells. Cells were fixed with 4% paraformaldehyde (PFA), permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with Cayman's Albumin Rabbit Monoclonal Antibody (Clone 101) (Item No. 37016) (1:60) at 37°C for 1 hour. The cells were then labeled with an Alexa Fluor® 488-conjugated goat anti-rabbit IgG secondary antibody (green). Positive staining was localized to cytoplasm.

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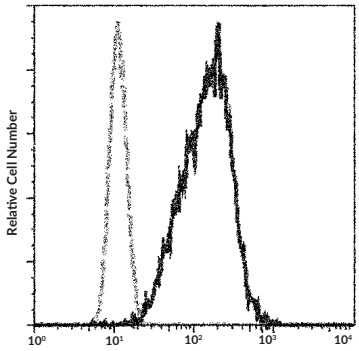
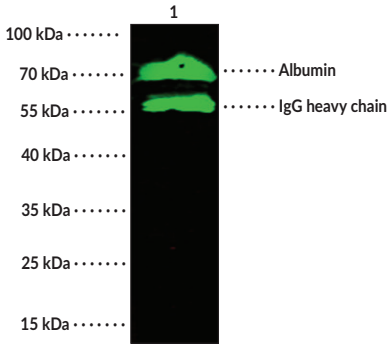


Purified albumin with isotype control (FITC secondary)

Flow cytometric analysis of Human albumin expression in HepG2 cells. Cells were treated according to manufacturer's manual (BD Pharmingen™, Cat. No. 554714), labeled with purified Albumin Rabbit Monoclonal Antibody (Clone 101) (Item No. 37016), then a FITC-conjugated secondary. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.



Lane 1: HepG2 whole cell lysate (0.5 mg)

IP of albumin in HepG2 cells using Albumin Rabbit Monoclonal Antibody (Clone 101) (Item No. 37016) at a dilution of 1:100, a rabbit IgG Dylight™ 800 secondary antibody at a dilution of 1:5,000 and 60 µg of immunomagnetic protein G beads.

Description

Albumin is a non-glycosylated and negatively charged protein that comprises 50% of total plasma protein content.[1] It is composed of three homologous domains that each contain two flexible subdomains, which are responsible for binding various ligands such as hormones, fatty acids, metal ions, metabolites, and pharmaceuticals. Albumin is a globular, secreted protein that exists primarily in a reduced form but also exists as mixed disulfides in complex with thiol-containing substances, such as cysteine and glutathione, in plasma.[1,2] It has roles in the maintenance of osmotic pressure, buffering blood pH, and the transport of the aforementioned ligands throughout the body. Serum levels of albumin are negatively correlated with all-cause mortality.[3,4] Plasma albumin levels are decreased and associated with poor prognosis and mortality in patients with cirrhosis.[3] Elevated levels of urinary albumin have been used as markers of the development of diabetic nephropathy and non-diabetic kidney disease and to evaluate the prognosis in various disease states and are associated with cardiovascular morbidity and mortality.[5-7] Cayman's Albumin Rabbit Monoclonal Antibody (Clone 101) can be used for ELISA, flow cytometry (FC), immunocytochemistry (ICC), immunofluorescence (IF), immunoprecipitation (IP), and Western blot (WB) applications. The antibody recognizes albumin at 68 kDa from human samples.

References

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2. Webb, R.J., Judan, J.D., Lo, L.-C., *et al.* Constitutive secretion of serum albumin requires reversible protein tyrosine phosphorylation events in *trans*-Golgi. *Am. J. Physiol. Cell Physiol.* **289(3)**, C749-C756 (2005).
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