Technical Data Sheet

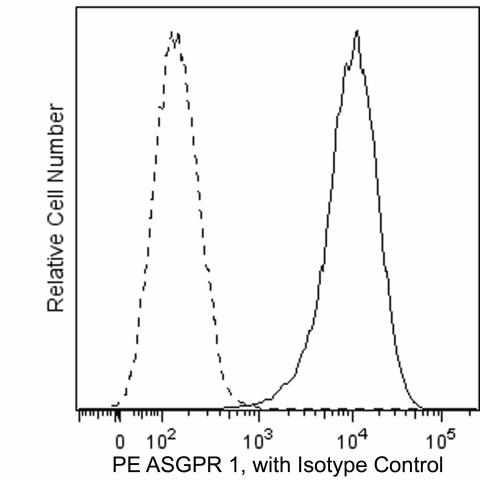
PE Mouse Anti-ASGPR 1

Product Information

Material Number:	**563655**
Alternate Name:	Asialoglycoprotein receptor 1, ASGR1, ASGP-R1, ASGPR 1, HL-1, CLEC4H1
Size:	50 tests
Vol. per Test:	5 µl
Clone:	8D7
Immunogen:	Rat Liver membrane constituents
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Reported Reactivity: Rat
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 8D7 monoclonal antibody recognizes Asialoglycoprotein receptor 1 (ASGPR 1), also known as Hepatic lectin H1 (HL-1). ASGPR 1 is an approximately 42 kDA type II integral membrane protein that is expressed on the surface of hepatic cells. It is expressed by hepatocytes on the sinusoidal-lateral plasma membrane but not on the bile canalicular membrane. ASGPR 1 plays a role in serum glycoprotein homeostasis. It functions as a subunit of the Asialoglycoprotein receptor (ASGPR) complex that binds, internalizes, and transports various glycoproteins for lysosomal degradation. The receptor may also promote hepatic infection by the binding and uptake of various viruses. The immunogen used to generate the 8D7 hybridoma was rat liver membrane extracts. Rat ASGPR consists of three polypeptide subunits (Rat hepatic lectin 1-3 (RHL1-3). The 8D7 antibody has been shown to react with a subunit-specific epitope on RHL-1. Clone 8D7 cross-reacts with human ASGPR 1.



Flow cytometric analysis of ASGPR 1 expression on Human Hepatocellular Carcinoma (Hep G2) cells. *Hep G2 cells (ATCC, HB-8065---) were harvested using BD™ Accutase™ Cell Detachment Solution (Cat. No. 561527). The cells were stained with either PE Mouse IgG1, κ Isotype Control (Cat. No. 551436; dashed line histogram) or PE Mouse Anti-ASGPR 1 antibody (Cat. No. 563655; solid line histogram) at matched concentrations. Histograms were derived from gated events with the forward and side light scattering characteristics of viable Hep G2 cells. Flow cytometric analysis was performed using a BD LSRFortessa™ Flow Cytometry System.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
561527	Accutase™ Cell Detachment Solution	100 ml	(none)
551436	PE Mouse IgG1 Kappa Isotype Control	50 tests	MOPC-21

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Accutase is a registered trademark of Innovative Cell Technologies, Inc.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Mizuno M, Yamada G, Nagashima H. Development of a monoclonal antibody identifying an antigen which is segregated to the sinusoidal and lateral plasma membranes of rat hepatocytes. *J Gastroenterol.* 1986; 21(3):238-244. (Immunogen)

Shimada M, Mizuno M, Uesu T, et al. A monoclonal antibody to rat asialoglycoprotein receptor that recognizes an epitope specific to its major subunit. *Hepatol Res*. 2003; 26(1):55-60. (Clone-specific: Flow cytometry, Immunofluorescence, Immunohistochemistry, Western blot)

Touboul T, Hannan NR, Corbineau S, et al. Generation of functional hepatocytes from human embryonic stem cells under chemically defined conditions that recapitulate liver development. *Hepatology*. 2010; 51(5):1754-1765. (Biology)

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