Datasheet for ABIN2192115

anti-SCARB1 antibody

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Overview

Quantity:	100 µg
Target:	SCARB1
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SCARB1 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro)), Neutralization (Neut)

Product Details

Clone:	3D12
Sterility:	0.2 µm filtered

Target Details

Target:	SCARB1
Alternative Name:	Scavenger Receptor Bi (SCARB1 Products)
Background:	Monoclonal antibody 3D12 reacts with rat class B scavenger receptor type I (SR-BI). Scavenger receptors have been studied primarily for their ability to bind and internalize modified lipoproteins. They have been found in the development of atherosclerosis and other macrophage-associated functions. Scavenger receptors also function as pattern recognition receptors for a wide variety of pathogens. This finding indicates a potential role in host defense.

Target Details

	SR-BI belongs together with CD36 to the class B scavenger receptor family. SR-BI is a multiligand membrane protein existing in various organs such as the liver and various cell types such as endothelial cells, macrophages, brain cells, Leydig cells and Sertoli cells. SR-BI has been found as a receptor for phospholipids, free and (lipo)protein-bound ApoE, lipid-bound ApoA-I, HDL, hypochlorite- modified LDL and more. In liver, the PDZK-1 (and possible other PDZ domains) of SR-BI has been found to be essential for cell surface expression and, hence, reverse cholesterol transport. In the brain, the presence of SR-BI seems to be involved in the uptake of oxidatively modified lipoproteins and beta- amyloid protein complexed with ApoE, suggesting SR-BI to be an important tool for studies on neurodegenerative disorders. In the testis, SR-BI is expressed in two somatic cell types: Leydig cells and Sertoli cells. SR-BI functions at least partly as a phosphatidyl serine receptor (PSR), enabling Sertoli cells to recognize and phagocytose apoptotic spermatogenic cells at all stages of differentiation. Monoclonal antibody 3D12 blocks the biological activity of rat SR-BI. For example, it inhibits the ability of SR-BI to mediate the corporation of lipids of HDL by SR-BI expressing cells.
Pathways:	Cellular Response to Molecule of Bacterial Origin, Hepatitis C, Lipid Metabolism, SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	For flow cytometry and immunohistology dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For neutralization of biological activity in vitro dilutions have to be made according to the amounts of SR-BI to be inactivated.
Restrictions:	For Research Use only

Handling

Buffer:	PBS containing 0.1 % bovine serum albumin.
Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.
Expiry Date:	12 months

Publications

Product cited in:	Pelletier, Okawara, Vitale, Anderson: "Differential distribution of the tight-junction-associated

protein ZO-1 isoforms alpha+ and alpha- in guinea pig Sertoli cells: a possible association with F-actin and G-actin." in: **Biology of reproduction**, Vol. 57, Issue 2, pp. 367-76, (1997) (PubMed).

Van Itallie, Balda, Anderson: "Epidermal growth factor induces tyrosine phosphorylation and reorganization of the tight junction protein ZO-1 in A431 cells." in: **Journal of cell science**, Vol. 108 (Pt 4), pp. 1735-42, (1995) (PubMed).

Balda, Anderson: "Two classes of tight junctions are revealed by ZO-1 isoforms." in: **The American journal of physiology**, Vol. 264, Issue 4 Pt 1, pp. C918-24, (1993) (PubMed).

Willott, Balda, Heintzelman, Jameson, Anderson: "Localization and differential expression of two isoforms of the tight junction protein ZO-1." in: **The American journal of physiology**, Vol. 262, Issue 5 Pt 1, pp. C1119-24, (1992) (PubMed).

Kurihara, Anderson, Farquhar: "Diversity among tight junctions in rat kidney: glomerular slit diaphragms and endothelial junctions express only one isoform of the tight junction protein ZO-1." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 89, Issue 15, pp. 7075-9, (1992) (PubMed).