CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	SR-BI, Rat, clone 3D12		
Catalog number	HM3027		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	<24 EU/mg	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes	•			•	•			
No								
N.D.		•	•			•	•	•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

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.

- FS: antibody 3D12 is useful for neutralization of the biological activity of SR-BI. For neutralization of biological activity dilutions have to be made according to the amounts SR-BI to be inactivated.

General Information

Description

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. 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.

References

1. Nakagawa, A et al; Expression and function of class B scavenger receptor type I on both apical and basolateral sides of the plasma membrane of polarized testicular Sertoli cells of the rat. Develop Growth Differ 2004, *46*: 283

Storage&stability

Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

cautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Robbert Zwinkels

Date
16/03/2018

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.