

Rat anti-Mouse SIGN-R1, clone ER-TR9 (Monoclonal)

Clone no. ER-TR9

MONOSAN

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Product name	Rat anti-Mouse SIGN-R1, clone ER-TR9 (Monoclonal)
Host	Rat
Applications	IHC-fr,FC,FUNC
Species reactivity	mouse
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgM
Clonality	Monoclonal
Clone number	ER-TR9
Size	1 ml
Concentration	200 ug/ ml
Format	-
Storage buffer	Sterile cell culture medium with 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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**Additional info**

The monoclonal antibody ER-TR9 recognizes murine SIGN-related 1 (SIGN-R1). Mouse SIGN-R1, a homolog of human DC-SIGN, is a 37 kDa type II transmembrane protein containing a single, C-terminal C-type lectin domain. SIGN-R1 is a specific marker for the identification of macrophage subpopulations present in the marginal zone of spleen (the so-called marginal zone macrophages (MZM)), in the lymph node medulla, and in the peritoneal cavity of some mouse strains. ER-TR9 does not react with macrophages in other regions of the spleen, such as CD169+ marginal metallophils and F4/80+ red pulp macrophages. In the spleen, the MZM function in trapping and clearance of blood-borne microbial antigens. SIGN-R1 mediates the uptake of encapsulated microbes, particularly through the recognition of microbial polysaccharides. Uptake of FITC-labeled dextran by macrophages can be blocked both in vivo and in vitro by the monoclonal antibody ER-TR9. Therefore, the monoclonal antibody ER-TR9 can be used to study the uptake of polysaccharides by macrophages.

**References**

1. Dijkstra; C; et al. Immunology 1985; 55: 23
2. Kretschmer, K, et al J Immunol 2003, 171: 6495
3. Kang; Y et al. PNAS 2004; 101: 215
4. Taylor P et al. J Immunol 2004; 172: 1157
5. Nagaoka K et al. Int Immunol 2005; 17: 827

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