



Anti-SIGLEC1 monoclonal antibody, clone FE4 (DCABY-496)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

Sialoadhesin is a cell adhesion molecule found on the surface of certain cells of the immune system called macrophages. It is found in especially high amounts on macrophages of the spleen, liver, lymph node, bone marrow, colon, and lungs. Also, in patients suffering from rheumatoid arthritis, the protein has been found in great amounts on macrophages of the affected tissues. It is defined as an I-type lectin, since it contains 17 immunoglobulin (Ig) domains (one variable domain and 16 constant domains), and thus also belongs to the immunoglobulin superfamily (IgSF). Sialoadhesin binds to certain molecules called sialic acids. During this binding process a salt bridge (protein) is formed between a highly conserved arginine residue (from the v-set domain to the 3'-sialyllactose) and the carboxylate group of the sialic acid. Since sialoadhesin binds sialic acids with its N-terminal IgV-domain, it is also a member of the SIGLEC family. Alternate names for sialoadhesin include siglec-1 and CD169 (cluster of differentiation 169).

Specificity

This antibody recognises the rat CD169 cell surface antigen, a 185kD molecule expressed by macrophages, predominately confined to lymphoid organs only. Monocytes and granulocytes are negative. No other cell types are positive. The most conspicuous property of FE4 is it stains marginal zone macrophages and marginal metallophils in the spleen very strongly. Furthermore, macrophages in (auto-immune) diseased tissues express the FE4 antigen. In healthy tissue no expression occurs. CD169 is a receptor for glycoconjugates containing sialic acid.

Immunogen

Rat Spleen cell homogenate

Isotype

IgG2a

Source/Host

Mouse

Species Reactivity

Rat

Clone

FE4

Conjugate	Unconjugated
Applications	Immunohistology-Frozen, Flow Cytometry, Immunofluorescence, Immunoprecipitation
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Format	Purified IgG - liquid
Size	100 µg
Buffer	Phosphate buffered saline
Preservative	0.09% Sodium Azide
Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

GENE INFORMATION

Gene Name	Siglec1 sialic acid binding Ig-like lectin 1, sialoadhesin [Rattus norvegicus (Norway rat)]
Official Symbol	SIGLEC1
Synonyms	SIGLEC1; sialic acid binding Ig-like lectin 1, sialoadhesin; Sn; sialoadhesin
Entrez Gene ID	311426
Protein Refseq	NP_001101247
UniProt ID	D3ZVM6
Chromosome Location	3q36
Pathway	Adaptive Immune System; Allograft rejection; Autoimmune thyroid disease; CD28 co-stimulation; CD28 dependent PI3K/Akt signaling; CD28 dependent Vav1 pathway; CTLA4 inhibitory signaling; Cell adhesion molecules (CAMs); Constitutive PI3K/AKT Signaling in Cancer; Costimulation by the CD28 family; DAP12 interactions; DAP12 signaling; Disease; Downstream Signaling Events Of B Cell Receptor (BCR); Downstream signal transduction; Downstream signaling of activated FGFR; Fc epsilon receptor (FCER1) signa
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