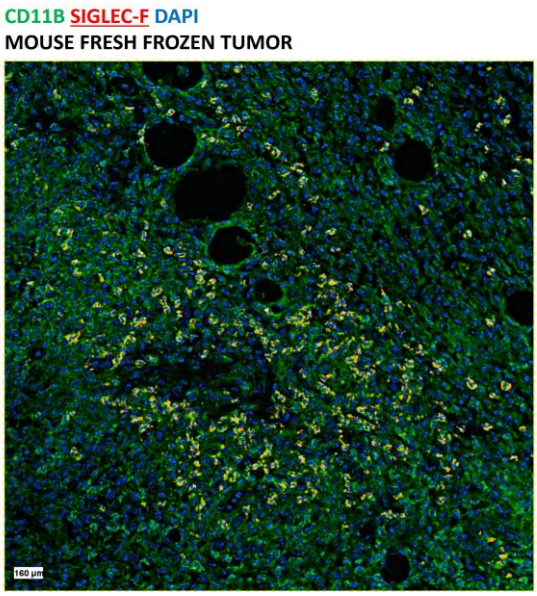
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Anti-Mouse Siglec-F [Clone E50-2440] — Purified (PhenoCycler-Fusion (CODEX)® Ready)

Monoclonal Antibody



Product Information

Product No.:	C2876
Clone:	E50-2440
Isotype:	Mouse Mouse IgG2a k
Storage:	Sterile 4°C

Product Description

Specificity:
E50-2440 activity is directed against mouse Siglec-F.

Antigen Distribution:
Siglec-F positive cells are expressed by eosinophils, alveolar macrophages, thymus and lung parenchyma tissues, and at very low levels on T cells. Siglec-F expression is restricted to cells of myelomonocytic lineage (CD11b-positive). Siglec-F is present on $CD11b^{lo}$ (lo = low expressors) and $CD11b^{hi}$ (hi = low expressors) cell populations from mouse bone marrow, blood, and spleen but is especially high on the CD11blo cells. Cells that are $CD11b^{lo}$/Siglec-F^{hi} are predominantly immature cells of the myelomonocytic lineage, and cells that are $CD11b^{lo\text{-}hi}$/Siglec-F^{lo} are mostly mature or immature neutrophils and monocytes, including leukocytes. Siglec-F is not expressed on mouse mast cells, stem cells, B cells, or NK cells.

Background:
Siglecs (sialic acid-binding immunoglobulin superfamily lectins) are a family of single pass, transmembrane cell surface proteins characterized by shared structural motifs and an ability to recognize sialic acids[1,2]. Siglec-F selectively recognizes 6'-sulfo-sialyl Lewis X as a glycan ligand, and this interaction is inhibited by the E50-2440 antibody[3]. Siglec-F belongs to the Siglec-3 (CD33) group[4] and is a functionally convergent paralog of human Siglec-8[3]. Mouse Siglec-F is used as a model to understand glycan based therapeutic targeting strategies in humans[1, 2].

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Expression of Siglec-F on eosinophils[3] plays a role in the allergic inflammatory response, during which its surface levels on eosinophils and other cells increase[1]. Siglec-F deficient mice that are exposed to allergen sensitization and asthma-inducing conditions display more pronounced bone marrow, blood, and tissue eosinophilia due to reduced apoptosis[1] as well as exaggerated eosinophilic inflammation and tissue remodeling in asthma models[2]. Administration of Siglec-F antibody reduces blood and tissue eosinophils *in vivo*[2].

The rat monoclonal antibody E50-2440 was prepared by immunizing Lou rats with mSiglec-F-Fc, a fusion protein of the first two Ig-like domains of mouse Siglec-F and human IgG Fc fragment separated by an enterokinase cleavage site/FLAG tag (DYKDDDDK)[4]. Spleen cells were fused with Yb/20 myeloma cells, and hybridomas were screened by ELISA, tested by flow cytometry, and isotyped. The E50-2440 clone was selected based on its high staining intensity on primary cells. Siglec-F is a reliable marker of eosinophils among granulocytes in mouse[1], and cellular staining profiles are identical in the C3H, Balb/c, and C57BL/6 mouse strains[4].

Known Reactivity Species:
Rat

Format:
Purified (PhenoCycler® Ready)

Formulation
This purified antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4.

Storage and Stability
The antibody solution should be stored undiluted at 4°C.

Applications
Applications and Recommended Usage (Quality Tested By Leinco):

CODEX® This Siglec-F (Clone E50-2440) antibody is formulated to simplify the antibody preparation needed when performing a CODEX® barcode conjugate. The suggested concentration is 0.5 mg/ml.
ELISA[4],
FC[3, 4, 5],
IHC[4],
IF Microscopy[4],
B[3],

Country of Origin
USA

References
1. Bochner BS. Clin Exp Allergy. 39(3):317-324. 2009.
2. Kiwamoto T, Kawasaki N, Paulson JC, et al. Pharmacol Ther. 135(3):327-336. 2012.

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3. Tateno H, Crocker PR, Paulson JC. Glycobiology. 15(11):1125-1135. 2005.
4. Angata T, Hingorani R, Varki NM, et al. J Biol Chem. 276(48):45128-45136. 2001.
5. Zhang JQ, Biedermann B, Nitschke L, et al. Eur J Immunol. 34(4):1175-1184. 2004.

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