

DESCRIPTION

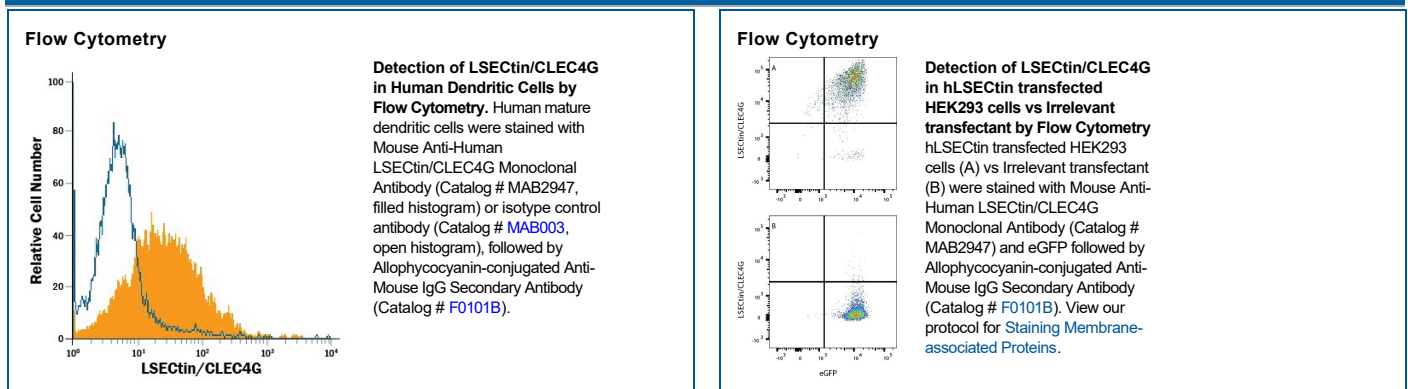
Species Reactivity	Human
Specificity	Detects human LSEctin/CLEC4G in flow cytometry.
Source	Monoclonal Mouse IgG _{2A} Clone # 845404
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with LSEctin/CLEC4G Ser54-Cys293 Accession # Q6UXB4
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

LSEctin (liver and lymph node sinusoidal endothelial cell C-type lectin), also known as C-type lectin superfamily 4, member G (CLEC4G), is a member of subgroup II of the C-type (Ca²⁺-dependent) lectin superfamily (1). The protein was named LSEctin because its initial expression was described to be restricted to liver and lymph node sinusoidal endothelial cells (1). Since then, however, LSEctin has also been detected in peripheral blood and thymic dendritic cells isolated *ex vivo*, and in monocyte-derived macrophages and dendritic cells at the RNA and protein level (2). Human LSEctin is an approximately 40 kDa, single-pass, type II transmembrane glycoprotein that is 293 amino acids (aa) in length. It contains a short N-terminal cytoplasmic tail (aa 1-31) and a 21 aa transmembrane region. Its extracellular region consists of two N-linked glycosylation sites (aa 73 and 159), a coil-coil neck domain (aa 96-136), a C-type lectin-like domain (CTLD) of the type found in human DC-SIGN and DC-SIGN receptor (aa 165-289), and a C-terminal Ca²⁺-dependent carbohydrate-recognition domain (C-type CRD) (1). Human LSEctin shares 64% aa sequence identity with mouse LSEctin. LSEctin binds to mannose, GlcNAc, and fucose in a Ca²⁺-dependent manner (1-3). In addition, LSEctin has the ability to bind to surface glycoproteins of enveloped viruses (3, 4). In particular, interaction of LSEctin with the surface glycoproteins of severe acute respiratory syndrome (SARS) coronavirus and Ebola virus has been described, and LSEctin-mediated infection of cells by Ebola virus has been demonstrated (3, 4).

References:

1. Liu, W. *et al.* (2004) J. Biol. Chem. **279**:18748.
2. Dominguez-Soto, A. *et al.* (2007) Blood **109**:5337.
3. Powlesland, A. *et al.* (2008) J. Biol. Chem. **283**:593.
4. Gramberg, T. *et al.* (2005) Virology **340**:224.