

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human AICL/CLEC-2B in direct ELISA.
Source	Monoclonal Mouse IgG ₁ Clone # 1064935
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived human AICL/CLEC-2B Lys26-His149 Accession # Q92478
Formulation	Supplied as a 0.2 µm filtered solution in PBS.

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.

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was U937 human histiocytic lymphoma cells.
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PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. 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 opening. • 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

Activation-induced C-type lectin (AICL), also known as CLEC2B, is a 30-35 kDa variably glycosylated type-2 transmembrane member of the C-type lectin-like receptor (CTLR) family. AICL belongs to the subgroup of CLEC2 proteins that also includes CLEC2A/KACL, CLEC2D/LLT, and CD69/CLEC2C, all of which are encoded by the natural killer gene complex (1). Human AICL contains a single C-type lectin domain in its extracellular region and a 7 amino acid cytoplasmic tail (2). AICL is expressed on monocytes, macrophages, and granulocytes (3), and it is upregulated on TLR-activated monocytes and IL-12 + IL-18 activated NK cells (3, 4). AICL is an activating receptor that triggers TNF production by monocytes (3). It binds to NKp80 on NK cells, resulting in NK cell mediated lysis of the AICL expressing monocyte (3). In addition, the AICL-NKp80 axis mediates interactions between activated and resting NK cells (4).

References:

1. Li, Y. *et al.* (2014) *Front. Immunol.* **5**:123.
2. Hamann, J. *et al.* (1997) *Immunogenetics* **45**:295.
3. Welte, S. *et al.* (2006) *Nat. Immunol.* **7**:1334.
4. Klimosch, S.N. *et al.* (2013) *Blood* **122**:2380.