

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CLEC17A in direct ELISA.
Source	Monoclonal Mouse IgG ₁ Clone # 1064719
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	CHO-derived human CLEC17A Lys194-Cys378 Accession # Q6ZS10
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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 HEK293 cells transfected with Human CLEC17A and eGFP vs irrelevant.
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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. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

C-type lectin domain family 17, member A (CLEC17A), also known as Prolectin, is type II transmembrane protein that is expressed mainly on dividing B cells found in the germinal centers of secondary lymphoid organs, including lymph nodes, tonsils, stomach, intestine, appendix and spleen (1, 2). CLEC17A binds preferentially to epithelial rather than to mesenchymal cells, and it behaves as a cell adhesion molecule for epithelial cells (2). It has high specificity towards mannose and was found to form disulfide-linked oligomers (1, 3). Human CLEC17A is synthesized as a 378 amino acid (aa) protein that includes a 172 aa cytoplasmic domain, a 21 aa transmembrane segment, and a 185 aa extracellular domain (ECD). Within the ECD, human CLEC17A shares 84% aa sequence identity with canine CLEC17A. C-type lectins are Ca²⁺-depending sugar-binding proteins that are involved in several immune-related and other physiological functions. Presently, 17 groups within the C-type lectin superfamily have been recognized (4), with more C-type lectins being constantly discovered based on the presence of a conserved 115-130 amino acid domain along their sequences - the C-type carbohydrate recognition domain (CRD). However, for most of the recently identified C-type lectins, their interactions with carbohydrates, intracellular functions and molecular mechanisms still remain unclear (3).

References:

1. Graham, S.A. *et al.* (2009) J. Biol. Chem. **284**:18537.
2. Breiman, A. *et al.* (2016) Oncotarget **7**:14064.
3. Koh, G. *et al.* (2011) BMC Bioinformatics **12**:S5.
4. Zelensky, A.N. *et al.* (2005) FEBS Journal **272**:6179.

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