

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human CLEC17A protein			
	MD	Human IgG ₁ (Pro100-Lys330)	IEGR	Mouse CLEC17A (Lys194-Cys378) Accession # Q6ZS10-1
	N-terminus			C-terminus
N-terminal Sequence	Met			
Analysis				
Structure / Form	Disulfide-linked homodimer			
Predicted Molecular Mass	48 kDa			

SPECIFICATIONS

SDS-PAGE	54-66 kDa, under reducing conditions
Activity	Measured by the ability of the immobilized protein to support the adhesion of the MCF-7 human breast cancer cells. The ED ₅₀ for this effect is 1.5-9 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

<p>Bioactivity</p> <p>Immobilized Recombinant Human CLEC17A Fc Chimera (Catalog # 10147-CL) supports the adhesion of the MCF-7 human breast cancer cells. The ED₅₀ for this effect is 1.5-9 µg/mL.</p>	<p>SDS-PAGE</p> <p>2 µg/lane of Recombinant Human CLEC17A Fc Chimera (Catalog # 10147-CL) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 54-66 kDa and 110-130 kDa, respectively.</p>
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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 AN. *et al.* (2005) *FEBS Journal* **272**:6179.