

Active Recombinant Mouse Clec4e protein, Fc-tagged

Cat. No. Clec4e-284M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Clec4e(Thr46-Asp214) fused with MDP and Fc region of Mouse IgG2a at N-terminal was expressed in CHO.
Species	Mouse
Source	CHO
ProteinLength	46-214 a.a.
Description	CLEC4E, also known as Mincle, is an approximately 30 kDa type 2 transmembrane C-type lectin that functions as an activating innate immune receptor. Mouse CLEC4E consists of a 19 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 174 aa extracellular domain (ECD) that contains the C-type lectin domain. Within the ECD, mouse CLEC4E shares 65% and 87% aa sequence identity with human and rat CLEC4E, respectively. CLEC4E is expressed on monocytes, macrophages, and immature dendritic cells. It associates with CLEC4D/MCL and the gamma chain signaling subunits of Fc receptors (mediated by an Arg residue in the CLEC4E transmembrane segment). Human CLEC4E binds to mycobacterial glycolipids including the immune adjuvant TDM (cord factor), its synthetic analog TDB, and GroMM. It also binds the nuclear protein SAP130 which can be released from necrotic cells and cholesterol crystals deposited in atherosclerotic plaques. Mouse CLEC4E, in contrast, does not appear to interact with TDB, GroMM, or cholesterol crystals. CLEC4E ligation triggers phagocytosis and the production of inflammatory chemokines and cytokines. The fungus Fonsecaea monophora may

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	evade immune clearance through binding to CLEC4E and suppressing IL-12 production and Th1 cell differentiation instead of promoting inflammation.
Predicted N Terminal	Met
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measured by its binding ability in a functional ELISA. When Trehalose 6, 6'-Dimycolate is immobilized at 1 µg/mL (100 µL/well), the concentration of Recombinant Mouse CLEC4E Fc Chimera that produces 50% of the optimal binding response is approximately 8-48 ng/mL.
Molecular Mass	Predicted Molecular Mass: 47 kDa SDS-PAGE: 54-63 kDa, reducing conditions
Endotoxin	<0.1 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.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 500 µg/mL in PBS.
GENE INFORMATION	
Gene Name	Clec4e C-type lectin domain family 4, member e [<i>Mus musculus</i>]

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Official Symbol	Clec4e
Synonyms	CLEC4E; C-type lectin domain family 4, member e; C-type lectin domain family 4 member E; C-type lectin superfamily member 9; macrophage-inducible C-type lectin; C-type lectin, superfamily member 9; C-type (calcium dependent, carbohydrate recognition domain) lectin, superfamily member 9; C86253; Mincle; Clecsf9;
Gene ID	56619
mRNA Refseq	NM_019948
Protein Refseq	NP_064332

 Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA