

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived human OCIL/CLEC2d protein			
	MD	Human IgG <sub>1</sub> (Pro100-Lys330)	IEGR	Human OCIL/CLEC2d (Ala58-Val191) Accession # Q9UHP7.1
	N-terminus			C-terminus
<b>N-terminal Sequence</b>	Met			
<b>Analysis</b>				
<b>Structure / Form</b>	Disulfide-linked homodimer			
<b>Predicted Molecular Mass</b>	42 kDa			

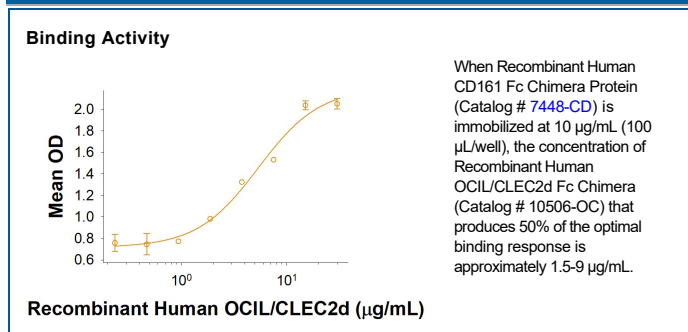
**SPECIFICATIONS**

<b>SDS-PAGE</b>	50-60 kDa, under reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Human CD161 Fc Chimera Protein (Catalog # 7448-CD) is immobilized at 10 µg/mL (100 µL/well), the concentration of Recombinant Human OCIL/CLEC2d Fc Chimera that produces 50% of the optimal binding response is approximately 1.5-9 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>85%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 250 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



## BACKGROUND

C-type lectin domain family 2 member D (CLEC2D), also known as lectin-like NK cell receptor, as lectin-like transcript 1 (LLT-1) and osteoclast inhibitory lectin (OCIL), is a member of the C-type lectin like (CTL) superfamily of natural killer cell receptors (1, 2). Human OCIL/CLEC2D is highly glycosylated and consists of a cytoplasmic domain, a type II transmembrane domain, a stalk region and a C-type lectin-like (CTL) in the extracellular domain (ECD). Within the ECD, mature human OCIL/CLEC2D shares 45% and 43% amino acid sequence identity with mouse and rat OCIL/CLEC2D, respectively. At least six different isoforms of OCIL/CLEC2D, resulting from alternatively splicing, have been reported (1, 2). OCIL/ CLEC2D plays a role in immunotherapy, inflammation and tissue injury and is expressed mainly on activated lymphocytes (NK cells, T cells, B cells) and antigen presenting cells (1-6). OCIL/CLEC2D forms a disulfide linked homodimer that acts as the only ligand for NKRP1A (CD161) and inhibits NK cell-mediated cytotoxicity and IFN-gamma secretion (1,6,7). OCIL/CLEC2D preferentially binds high molecular weight sulfated glycosaminoglycans and blocks osteoclast differentiation (1, 4).

## References:

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2. Germain, C. *et al.* (2010) *J. Biol. Chem.* **285**:36207.
3. Mathew, S. *et al.* (2016) *Oncotarget* **7**:68650.
4. Lai, J. *et al.* (2020) *Immunity* **52**:123.
5. Varaden, D. *et al.* (2019) *Eur. J. Obstet. Gynecol. Reprod. Biol. X.* **3**:100039.
6. Sun, Y. *et al.* (2019) *J. Cancer Metastasis Treat.* **5**:80.
7. Skalova, T. *et al.* (2015) *Acta. Crystallogr. D. Biol. Crystallogr.* **71**:578.