

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived		
	Mouse SECTM1A (Gln28-Thr165) Accession # NP_663348	IEGRMDP	Mouse IgG <sub>2A</sub> (Glu98-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Gln28 predicted: No results obtained, sequencing might be blocked		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	42.6 kDa (monomer)		

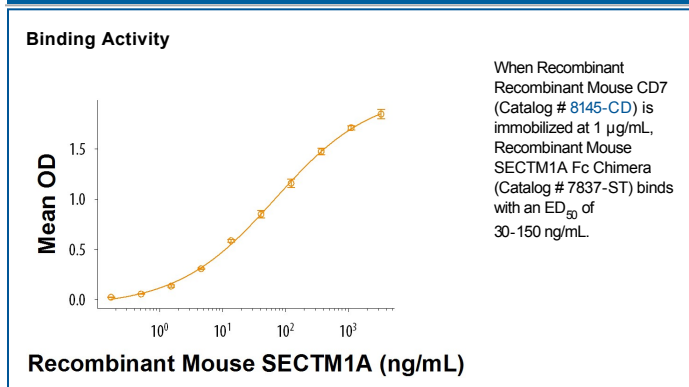
**SPECIFICATIONS**

<b>SDS-PAGE</b>	55-66 kDa, reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Mouse CD7 (Catalog # 8145-CD) is immobilized at 1 µg/mL, 100 µL/well, the concentration of Recombinant Mouse SECTM1A Fc Chimera that produces 50% of the optimal binding response is 30-150 ng/mL.
<b>Endotoxin Level</b>	<0.01 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<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 100 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>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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**

SECTM1A (secreted and transmembrane 1A), is 192 amino acid (aa) protein that shares approximately 45-51%, 81%, and 43% aa sequence identity with human SECTM1 (also called K12), rat SECTM1, and mouse SECTM1B/K12, respectively, and appears to share structural and functional characteristics with other SECTM1 proteins. Human SECTM1 can be found either found as an approximately 27 kDa intracellular type I transmembrane protein that shows a perinuclear, Golgi-like staining pattern, or as a 20 kDa soluble, secreted form, and is produced by some myeloid cells and by thymic epithelia and fibroblasts (1-3). Stimulation with IFN-γ is often necessary to detect human SECTM1 expression, and it is thought to be an interferon early-response gene (1-5). Mouse SECTM1A cDNA encodes a signal sequence, an extracellular domain with four potential N-linked glycosylation sites, a transmembrane sequence, and a very short (approximately 6 aa) cytoplasmic sequence (6). SECTM1 proteins from human and mouse show species-specific binding of CD7 and co-stimulation of T cells, including enhancement of CD3-induced proliferation (2-4).

**References:**

1. Slentz-Kesler, K.A. *et al.* (1998) *Genomics* **47**:327.
2. Lam, G.K. *et al.* (2005) *J. Clin. Immunol.* **25**:41.
3. Wang, T. *et al.* (2012) *J. Leukoc. Biol.* **91**:449.
4. Lyman, S.D. *et al.* (2000) *J. Biol. Chem.* **275**:3431.
5. Huyton, T. *et al.* (2011) *Biochim. Biophys. Acta* **1810**:1294.
6. Swiss-Prot Accession # Q921W8.