

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived mouse VSTM2L protein		
	Hemagglutinin Tag (YPYDVPDYA)	Gln	Mouse VSTM2L (Arg26-Leu202)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Tyr		
Structure / Form	Monomer		
Predicted Molecular Mass	21 kDa		

SPECIFICATIONS

SDS-PAGE	19-25 kDa, reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IFN-gamma secretion by human peripheral blood mononuclear cells (PBMC). The ED ₅₀ for this effect is 0.5-3 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 100 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

Bioactivity

Recombinant Mouse VSTM2L (Catalog # 2152-VT) inhibits anti-CD3 antibody induced IFN-gamma secretion by human peripheral blood mononuclear cells (PBMC). The ED₅₀ for this effect is 0.5-3 µg/mL.

SDS-PAGE

2 µg/lane of Recombinant Mouse VSTM2L was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 19-25 kDa.

BACKGROUND

V-set and transmembrane domain-containing protein 2-like protein (VSTM2L), also known as C20orf102, is a 22 kDa extracellular protein belonging to the Immunoglobulin superfamily. VSTM2L contains an N-terminal signal peptide (aa 1-25), and an Ig-like domain (aa 41-158) with a disulfide bond between Cys 62 and Cys142. VSTM2L is expressed primarily in the central nervous system, but is also detected in serum and secreted in cultured cells (1). It has been found to be an antagonist of the neuroprotective peptide Humanin (1). Human VSTM2L has a 94% sequence identity to mouse homolog. VSTM2L functions as an inhibitory receptor in macrophages (2). Our in house data show that VSTM2L inhibits human T cell activation, including anti-CD3 induced IFN-gamma secretion.

References:

1. Rossini L. *et al.* (2011) FASEB J. **25**:1983.
2. Yu, Z. *et al.* (2001) J. Biol. Chem. **276**:23816.