

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse VSTM2B protein		
	Mouse VSTM2B (Thr29-Ser263) Accession # Q9JME9	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence	Thr29		
Analysis			
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	51 kDa		

SPECIFICATIONS

SDS-PAGE	61-70 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 2-10 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, 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 200 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 °C under sterile conditions after reconstitution.

DATA

Bioactivity

Recombinant Mouse VSTM2B (µg/mL)	Mean OD
0.1	1.0
0.3	1.0
1.0	1.0
3.0	0.95
10	0.75
30	0.6
100	0.6

Recombinant Mouse VSTM2B Fc Chimera (Catalog # 10076-VT) inhibits IFN-gamma secretion by human peripheral blood mononuclear cells in the presence of anti-CD3 antibody. The ED₅₀ for this effect is 2-10 µg/mL.

SDS-PAGE

2 µg/lane of Recombinant Mouse VSTM2B Fc Chimera was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 61-70 kDa and 120-140 kDa, respectively.

BACKGROUND

V-set and transmembrane domain-containing protein 2B, also known as VSTM-2B, is a single pass Type I membrane protein. Mouse VSTM-2B contains an N-Terminal signal peptide (1-28 aa), an extracellular domain (aa 29-263) which contains a single Ig-like V-Type domain (aa 29-143) with a single disulfide bond between C49 and C127, a helical transmembrane domain (aa 264-284) and a single histidine in the cytoplasm (aa 285). VSTM2B is expressed in multiple organs, with the highest expression in the pyloric antrum. The extracellular domain shares 89% and 96% sequence identity for the human and rat homolog, respectively. Currently, both the expression pattern and biological functions of VSTM2B remain unknown. our in house data show that VSTM2B inhibits anti-CD3 induced IL-2 and IFN-g secretion on human T cells.