

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human VSTM2B protein Ala29-Thr263, with a C-terminal 6-His tag Accession # A6NLU5
N-terminal Sequence Analysis	Ala29
Structure / Form	Monomer
Predicted Molecular Mass	26 kDa

SPECIFICATIONS

SDS-PAGE	37-45 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 1-6 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 500 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 Human VSTM2B (Catalog # 10061-VT) inhibits IFN-γ secretion by human peripheral blood mononuclear cells in the presence of anti-CD3 antibody. The ED₅₀ for this effect is 1-6 µg/mL.

SDS-PAGE

2 µg/lane of Recombinant Human VSTM2B was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 37 - 45 kDa.

BACKGROUND

VSTM2B, or V-set and transmembrane domain-containing protein 2B is a membrane protein which includes a 235 amino acid (aa) extracellular domain that contains an Ig-like V-type domain, a 21 aa transmembrane domain, and one aa in cytoplasm. This extracellular domain shares 45% aa identity human VSTM2A. The mature extracellular domain of human VSTM2B shares 86% and 85% aa sequence identity for the mouse and rat homolog, respectively. Currently, both the expression pattern and biological functions of VSTM2B remain unknown. our in house data show that VSTM2B inhibits the human T cell activation, including anti-CD3 induced IL-2, IFN-γ secretion, and T cell proliferation.