

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human Vasorin/SLIT-like 2 protein		
	Human Vasorin/SLIT-like 2 (Cys24-Asn573) Accession # Q6EMK4	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence	Cys24		
Analysis			
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	86 kDa		

SPECIFICATIONS

SDS-PAGE	106-120 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human TGF-β1 (Catalog # 240-B) is used at 1 µg/mL (100 µL/well), Recombinant Human Vasorin/SLIT-like 2 Fc Chimera (Catalog# 10139-VN) binds with an ED ₅₀ of 0.4-2.4 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 with Trehalose. 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 to -70 °C under sterile conditions after reconstitution.

DATA

Binding Activity

When Recombinant Human TGF-β1 (Catalog # 240-B) is used at 1 µg/mL (100 µL/well), Recombinant Human Vasorin/SLIT-like 2 Fc Chimera (Catalog # 10139-VN) binds with an ED₅₀ of 0.4-2.4 µg/mL.

SDS-PAGE

2 µg/lane of Recombinant Human Vasorin/SLIT-like 2 Fc Chimera (Catalog # 10139-VN) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 106-120 kDa and 220-240 kDa, respectively.

BACKGROUND

Vasorin, also known as SLIT-like 2, is an approximately 110-kDa transmembrane protein that is expressed on vascular smooth muscle cells and in the developing skeletal system (1, 2). It is down-regulated following vascular injury (1). A 95-kDa soluble form of Vasorin can be shed from the cell surface by ADAM17-mediated cleavage (3). The shed soluble form of Vasorin binds to TGF-beta 1, 2, and 3 and prevents TGF-beta-induced effects including intimal formation and epithelial mesenchymal transition (1, 3). Soluble Vasorin is elevated in the serum of hepatic carcinoma patients relative to normal or non-cancerous hepatic disease (4). It promotes tumor cell proliferation, migration, and survival (4). Mature human Vasorin consists of a 552 amino acid (aa) extracellular domain (ECD) with 10 leucine rich repeats (LRR) flanked by one LRRNT and one LRRCT domain, one EGF-like domain, and one Fibronectin type III domain, a 21 aa transmembrane segment, and a 77 aa cytoplasmic domain (1). Within the ECD, human Vasorin shares 85% and 86% aa sequence identity with mouse and rat Vasorin, respectively.

References:

1. Ikeda, Y. *et al.* (2004) *Proc. Natl. Acad. Sci. USA* **101**:10732.
2. Krautzberger, A.M. *et al.* (2012) *Gene Expr. Patterns* **12**:167.
3. Malapeira, J. *et al.* (2011) *Oncogene* **30**:1912.
4. Li, S. *et al.* (2015) *Oncotarget* **6**:10045.