

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human EG-VEGF/PK1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 10% cross-reactivity with recombinant rat EG-VEGF is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human EG-VEGF/PK1 Ala20-Phe105 Accession # P58294
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human EG-VEGF/PK1 (Catalog # 1209-EV)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile 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. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Endocrine gland-derived vascular endothelial growth factor (EG-VEGF), also called prokineticin 1 (PK1), is a member of the prokineticin family of secreted proteins that share a common structural motif containing ten conserved cysteine residues that form five pairs of disulfide bonds (1, 2). Members of this family include the mammalian EG-VEGF/PK1 and PK2, as well as the venom protein A (VPRA) from the venom of black mamba snake and the frog *Bombina variegata*, Bv8 (1). Human EG-VEGF precursor is a 105 amino acid (aa) residue protein with a 19 aa signal peptide that is cleaved to yield a 86 aa mature protein (1, 2). EG-VEGF is expressed in multiple tissues including the gastrointestinal (GI) tract and steroidogenic glands (testis, ovary, placenta and adrenal glands). EG-VEGF has been shown to potently stimulate the contraction of GI smooth muscle. In addition, EG-VEGF is a tissue-specific angiogenic factor that exhibits biological activities similar to that of VEGF on select cells. It induces the proliferation, migration, and fenestration in cultured endocrine gland-derived capillary endothelial cells. EG-VEGF binds to and activates two closely related G protein-coupled receptors, EG-VEGF/PK1-R1 and EG-VEGF/PK2-R2 (3, 4). Activation of the receptors leads to stimulation of phosphoinositide turnover and activation of p44/p42 MAP kinase signaling pathways.

References:

1. Li, M. *et al.* (2001) *Mol. Pharmacol.* **59**:692.
2. LeCouter, J. *et al.* (2001) *Nature* **412**:877.
3. Lin, D. *et al.* (2002) *J. Biol. Chem.* **277**:19276.
4. Masuda, Y. *et al.* (2002) *Biochem. Biophys. Res. Commun.* **293**:396.