Human EG-VEGF/PK1 Antibody

Monoclonal Mouse IgG_1 Clone # 188608

Catalog Number: MAB12091

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human EG-VEGF/PK1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 188608
Purification	Protein A or G purified from hybridoma culture supernatant
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. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

Human EG-VEGF/PK1 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human EG-VEGF/PK1 Antibody (Catalog # MAB12091)
ELISA Detection	0.1-0.4 µg/mL	Human EG-VEGF/PK1 Biotinylated Antibody (Catalog # BAF1209)
Standard		Recombinant Human EG-VEGF/PK1 (Catalog # 1209-EV)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 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.

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