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WKYMVm Protein
A Potent Agonist of FPR2 and FPR3 G-Protein Coupled Receptors
Catalog # PG10021

Specification

WKYMVm Protein - Product Information

WKYMVm Protein - Additional Information

Storage
-20°C

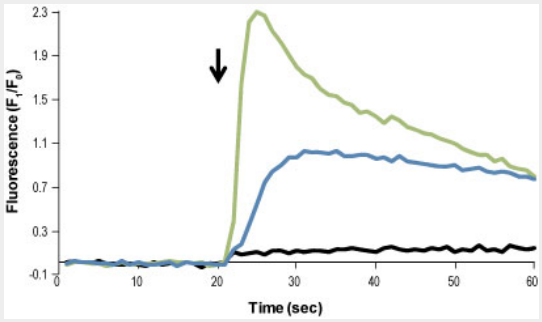
Precautions
WKYMVm Protein is for research use only and not for use in diagnostic or therapeutic procedures.

WKYMVm Protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

WKYMVm Protein - Images



WKYMVm - Abgent WKYMVm activates Ca2+ transients in HL-60 cells.Cells were loaded with Fluo-3 AM. Changes in intracellular Ca2+ were detected via changes in Fluo-3 emission following application (indicated by arrow) of 1µM WKYMVm (#PG10021), (green) compared to control (black, saline perfusion) and to the effect achieved after 30 minutes incubation with the specific FPR2 antagonist WRW4, (10 µM, blue).

WKYMVm Protein - Background

Chemotactic factors from both Gram-positive and Gram-negative bacteria are short peptides with N-formyl methionine at the N-terminus (extensively reviewed in reference 1). These peptides are released from bacteria during infection and activate formyl peptide receptor (FPR), a member of G-protein coupled receptors (GPCRs). In human, the FPR family consists mainly of three receptors, FPR1, FPR2/ALX (formerly FPRL1), and FPR3 (formerly FPRL2) which all couple to the Gi subtype of G-proteins and ultimately lead to the activation of phospholipase C and intracellular Ca2+increase1,2.WKYMVm is a selective agonist of the Formylpeptide receptors (FPR2 and FPR3) and was discovered by screening peptide libraries for their ability to stimulate inositol phosphates in lymphocyte cell lines3,4. It is also an agonist of FPR11. FPR2 is expressed in the promyelocytic leukemia cell line HL-60 as well as in the chronic myelogenous leukemia cell line K5625.WKYMVm inhibited the infection of human peripheral monocyte–derived macrophages and CD41 T lymphocytes by strains of HIV-1, via sensitization of chemokine receptors (CXCR4 and CCR5), following FPR2 activation6.

WKYMVm Protein - References

1 . Ye, R.D. et al.(2009)Pharmacol. Rev.61,119.2 . Le, Y. et al.(2002)Trends Immunol. 23,541.3 . Le, Y. et al. (1999)J. Immunol.163,6777.4 . Christophe, T. et al. (2001)J. Biol. Chem. 276,21585.5 . See Applications for Anti-Human FPR2/ALX (extracellular).6 . Li, B.Q. et al. (2001)Blood97,2941.