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Product Information

PIK3C3 (Vps34), active, GST-tagged, human
PRECISIO® Kinase
recombinant, expressed in *Sf*9 cells

Catalog Number **SRP5306**
Storage Temperature –70 °C

Synonyms: VPS34, hVps34, MGC61518

Product Description

PIK3C3 or phosphoinositide-3-kinase is a member of the PI3 kinase family that mediates the active diversion of proteins from the secretory pathway to vacuoles. PIK3C3 is involved in both receptor-mediated signal transduction and intracellular trafficking. In yeast, the vps34 gene product is a PI3 kinase. PIK3C3 has a substrate specificity and ion requirements that are distinct from the other known mammalian PI3 kinases.[1] PIK3C3 mediates catalysis on membranes and suppresses futile adenosine triphosphatase cycles. PIK3C3 appears to alternate between a closed cytosolic form and an open form on the membrane.[2]

Recombinant full-length human PIK3C3 (Vps34) was expressed by baculovirus in *Sf*9 insect cells using an N-terminal GST-tag. The gene accession number is NM_002647. It is supplied in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~128 kDa

Kinase activity was determined with a luminescent assay procedure.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot:
≥70% (SDS-PAGE, densitometry)

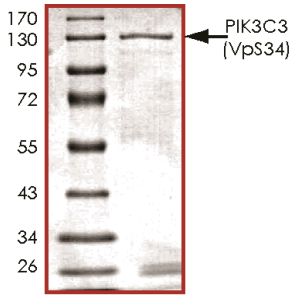
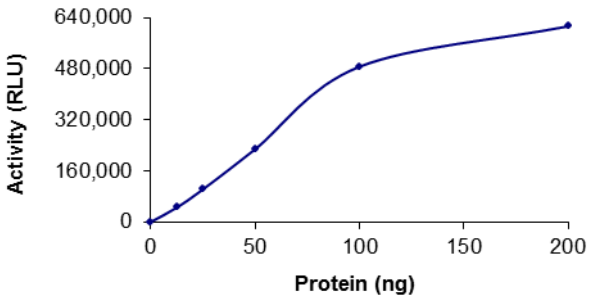


Figure 2.
Specific Activity of Typical Lot:
78–216 nmole/min/mg



References

1. Volinia, S. et.al., A human phosphatidylinositol 3-kinase complex related to the yeast Vps34p-Vps15p protein sorting system. EMBO J., **14**, 3339-3348 (1995).
2. Miller, S. et.al., Shaping development of autophagy inhibitors with the structure of the lipid kinase Vps34. Science, **327**, 1638-1642 (2010).

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