

## Product Information

### VLK, GST-tagged, human recombinant, expressed in *Sf9* cells

Catalog Number **SRP5369**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonyms: SGK493, PKDCC

#### Product Description

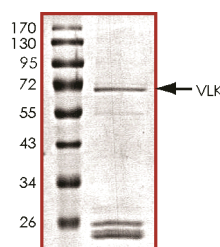
VLK or vertebrate lonesome kinase is a protein kinase which is first expressed in E-cadherin-positive anterior visceral endoderm and mesendoderm, and later its expression is confined to E-cadherin-negative mesenchyme. VLK regulates the rate of protein export from the Golgi and, thereby, plays an important role in the formation of functional stroma by mesenchymal cells.<sup>1</sup> Targeted disruption of VLK leads to a defect in lung development and delayed ossification of endochondral bone. VLK deficient mice display neonatal lethality due to respiratory failure, with a suckling defect arising from a cleft palate. VLK is required for the appropriate timing of flat proliferative chondrocyte differentiation.<sup>2</sup>

Recombinant human VLK (129-end) was expressed by baculovirus in *Sf9* insect cells using an N-terminal GST-tag. The gene accession number is NM\_138370. It is supplied in 50 mM Tris-HCl, pH 7.5, 50 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~69 kDa

The enzymatic activity of this product has not been determined.

**Figure 1.**  
SDS-PAGE Gel of Typical Lot:  
 $\geq 70\%$  (SDS-PAGE, densitometry)



#### 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  $-70^{\circ}\text{C}$  is recommended. After opening, aliquot into smaller quantities and store at  $-70^{\circ}\text{C}$ . Avoid repeated handling and multiple freeze/thaw cycles.

#### References

1. Kinoshita et al., The novel protein kinase Vlk is essential for stromal function of mesenchymal cells. *Development*, **136**, 2069-2079 (2009).
2. Imuta, Y. et al., Short limbs, cleft palate, and delayed formation of flat proliferative chondrocytes in mice with targeted disruption of a putative protein kinase gene, Pkdcc (AW548124). *Dev. Dyn.*, **238**(1), 210-22 (2009).

RC,MAM 10/12-1