

3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

# **Product Information**

LMTK3, GST-tagged, mouse recombinant, expressed in Sf9 cells

Catalog Number **SRP5362** Storage Temperature –70 °C

Synonyms: AATYK3, MGC90743

## **Product Description**

LMTK3 (Lemur tyrosine kinase 3) belongs to the LMR subfamily of tyr protein kinases. LMTK3 decreases the activity of protein kinase C (PKC) and also leads to phosphorylation of AKT (ser<sup>473</sup>); thereby, increasing binding of forkhead box O3 (FOXO3) to the ESR1 promoter. LMTK3 phosphorylates ERa, protecting it from proteasomal degradation *in vitro*. Knockdown of LMTK3 leads to a reduction of tumor volume in an orthotopic mouse model and abrogates proliferation of ERa+ but not ERa– cells, indicative of its role in ERa activity. These findings reveal LMTK3 as a new therapeutic target for breast cancer.<sup>1</sup>

Recombinant mouse LMTK3 (63-484) was expressed by baculovirus in *Sf*9 insect cells using an N-terminal GST-tag. The gene accession number is NM\_001005511. 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.

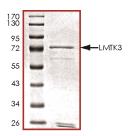
Molecular mass: ~75 kDa

The enzymatic activity of this product has not been determined.

Figure 1.

SDS-PAGE Gel of Typical Lot:

≥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 °C is recommended. After opening, aliquot into smaller quantities and store at -70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

#### References

 Giamas, G. et al., Kinome screening for regulators of the estrogen receptor identifies LMTK3 as a new therapeutic target in breast cancer. Nat. Med., 17(6), 715-9 (2011).

RC,MAM 10/12-1