

# Active Lemur Tyrosine Kinase 3 (LMTK3) Instruction Manual

**SBPE351Hu01**

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 95%

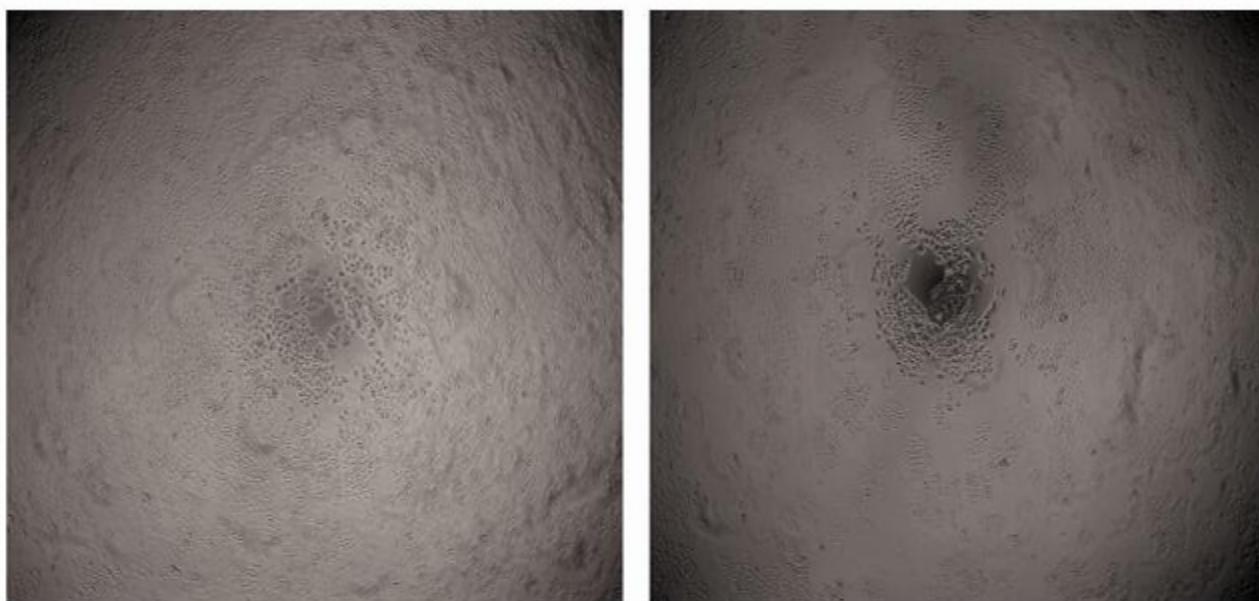
**Isoelectric Point**

6.3

**Applications**

Cell culture; Activity Assays.

**ACTIVITY TEST**



**A**

**B**

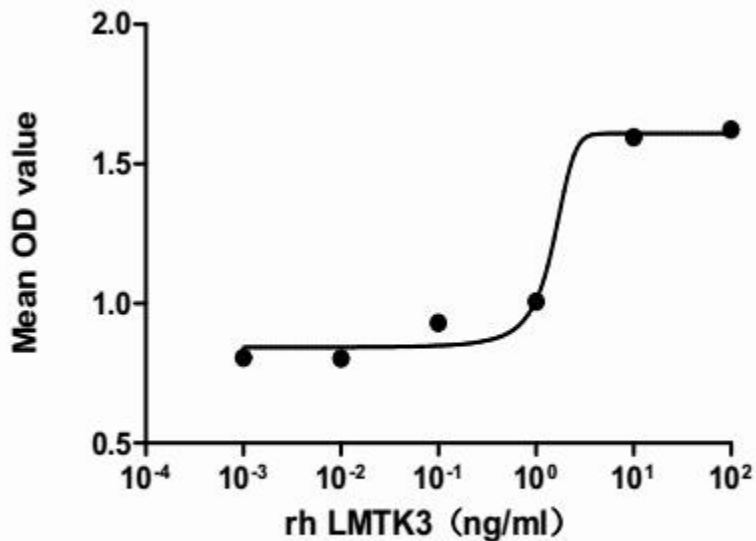
**Figure 1. Cell proliferation of MCF-7 cells after stimulated with LMTK3.**

**(A) MCF-7 cells cultured in serum-free DMEM, stimulated with 10ng/mL LMTK3 for 72h;**

**(B) Unstimulated MCF-7 cells cultured in serum-free DMEM for 72h.**

Lemur tyrosine kinase 3 (LMTK3), a member of the receptor tyrosine kinase (RTK) family, is implicated in breast cancer growth and endocrine resistance. It has been reported that LMTK3 promotes cell invasion, motility, and migration of the MCF-7 breast cancer cell line. To test the bioactivity of LMTK3, MCF-7 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of LMTK3. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10  $\mu$ L of CCK-8 solution was added to each well of the plate, then measure the absorbance at 450nm using a microplate reader after incubating the plate for 1-4 hours at 37°C.

Cell proliferation of MCF-7 cells after incubation with LMTK3 for 72h observed by inverted microscope was shown in Figure 1.



**Figure 2. The dose-effect curve of LMTK3 on MCF-7 cells**

The dose-effect curve of LMTK3 was shown in Figure 2. It was obvious that LMTK3 significantly promoted cell proliferation of MCF-7 cells. The ED50 for this effect is approximately 6.14~50ng/mL.

## USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

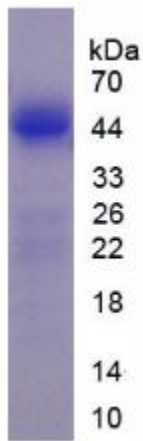
## STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

### Image



SDS-PAGE Image

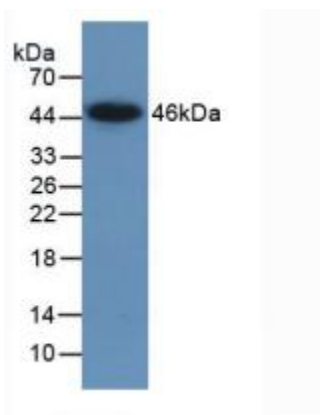


Figure. Western Blot; Sample: Recombinant LMTK3, Human.

**[IMPORTANT NOTE]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.