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## Technical Data Sheet

### For research use only

Not intended or approved for  
diagnostic or therapeutic use.

## Sphingosine kinase 2, active

(Recombinant full-length human protein expressed in Sf9 cells)

Catalog #           **E-K069**  
Size:                 10 µg  
Specific activity:   20 U/mg

### Product Description

Sphingosine kinase 2 (sphingosine kinase type 2 isoform, SphK2) is a lipid kinase. Recombinant full-length human Sphingosine kinase 2 with N-terminal 6xHis tag was expressed in a baculovirus infected Sf9 insect cell expression system. The GenBank Accession number is AF245447. MW = 69.5 kDa.

### Specific Activity

20 U/mg. One unit of Sphingosine kinase activity is defined as 1 nmol phosphate incorporated per minute into D- erythro-sphingosine substrate to produce SIP at pH 7.4 and 30 °C.

### Assay condition

50 mM HEPES, pH 7.4, 150 mM NaCl, 5 mM MgCl<sub>2</sub>, 1 mM DTT, 3 µM Na-orthovanadate, 0.1 mM ATP, 4 µM D-erythro-sphingosine substrate, and 1 µg/ml recombinant Sphingosine kinase 2.

### Purity

> 80% by SDS-PAGE.

### Formulation

Recombinant protein is in storage buffer (25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 3 mM DTT, and 50% glycerol).

### Storage and Stability

Store product frozen at or below -70 °C. Enzyme will be stable for at least 6 months at -70 °C as undiluted stock. Freeze in working aliquots to avoid repeated thawing and freezing.

### Application

Sphingosine kinase 2 is useful for the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

### References

1. Zemann B. *et al.* (2006) *Blood* **107** (4), 1454-8
2. Maceyka M. *et al.* (2005) *J. Biol. Chem.* **280** (44), 37118-29