

LANCE® Ultra

**ULight™ - labeled Acetyl-CoA carboxylase (Ser79) Peptide****Product number:** TRF0133-M **Lot Number:** 3309169**Product Format:** TRF0133-D: 0.5 nmole (100µL)  
TRF0133-M: 5 nmoles (Lyophilized, add 1mL of water)**Manufacturing date:** 06/24/2024 **Document version:** 1**Product Information**

**Phosphorylation Motif:** RSAM<sub>S</sub>GLHL  
Synthetic peptide derived from residues 73-85 of rat Acetyl CoA Carboxylase (also known as SAMS peptide) in which Ser77 is mutated to Ala; phosphorylation site: Ser79

**Storage Buffer:** 50 mM Tris-HCl (pH 7.4), 0.9% NaCl, 0.1% BSA and 0.05% sodium azide as preservative

**Molecular Weight:** 2 674

**Stability:** This product is stable for at least **9 months** from the manufacturing date when stored in its original packaging and the recommended storage conditions.

**Storage Conditions:** Store at -20°C. Store protected from light. Repeated freezing and thawing should be avoided.

**Quality Control**

The QC release specifications are based on spectrophotometric analysis of the labeled protein. We certify that results meet our quality release criteria.

**Labeling Ratio:** 1.0 (dye molecule/peptide)  
**Concentration:** 13.4 µg/mL (5 µM)

**Recommended Assay Conditions****AMPK $\alpha$ 1 kinase: ATP titration**

## SUGGESTED METHOD:

*(Specific applications might require optimization)*Reagent Preparation

- Prepare 1X Kinase Assay Buffer: 50 mM HEPES pH 7.5, 1 mM EGTA, 10 mM MgCl<sub>2</sub>, 2 mM DTT and 0.01% Tween-20.
- Prepare a 2X AMPK $\alpha$ 1 solution: dilute enzyme to a concentration of 4 nM in Kinase Assay Buffer. Keep on ice.
- Prepare a 4X ULight-Acetyl CoA Carboxylase (Ser79) peptide solution: dilute ULight-Acetyl CoA Carboxylase (Ser79) to a concentration of 200 nM in Kinase Assay Buffer.
- Prepare a 4X ATP solution: dilute ATP to concentrations ranging from 40 nM to 4 mM (serial half-log dilutions) in Kinase Assay Buffer. Keep on ice.
- Prepare 1X Detection Buffer: dilute 0.5 mL of 10X Detection Buffer with 4.5 mL of H<sub>2</sub>O.
- Prepare a 4X Stop solution\*: dilute EDTA to a concentration of 40 mM in 1X Detection Buffer.
- Prepare a 4X Detection Mix: dilute Europium-anti-phospho-Acetyl CoA Carboxylase (Ser79) antibody to a concentration of 8 nM in 1X Detection Buffer.

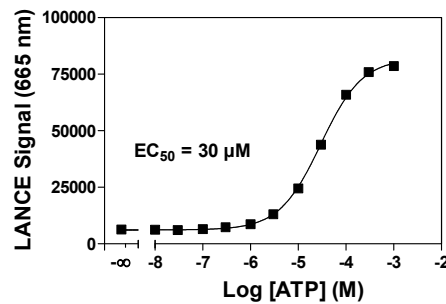
Protocol

- Pipet 5  $\mu$ L of 2X AMPK $\alpha$ 1 solution into a 384-well white OptiPlate-384 (2 nM final concentration).
- Add 2.5  $\mu$ L of 4X ULight- Acetyl CoA Carboxylase (Ser79) solution (50 nM final concentration).
- Add 2.5  $\mu$ L of 4X ATP solution (10 nM to 1 mM final concentrations).
- Cover plate with TopSeal-A and incubate 30 min at 23°C.
- Add 5  $\mu$ L of 4X Stop solution\* and incubate 5 min at 23°C.
- Add 5  $\mu$ L of 4X Detection Mix (2 nM Eu-anti-phospho-Acetyl CoA Carboxylase (Ser79) final conc.).
- Cover plate with TopSeal-A and incubate 60 min at 23°C.
- Remove TopSeal-A and read in TR-FRET mode at 665 nm (excitation at 320 or 340 nm).

\*Alternatively, the Stop solution and Detection Mix can be premixed and added together to the kinase reaction.

## Typical Product Data

AMPK $\alpha$ 1 kinase assay using ULight-Acetyl CoA Carboxylase (Ser79) Peptide and Eu-anti-phospho-Acetyl CoA Carboxylase (Ser79) Antibody obtained using the EnVision® Multilabel Reader:



## Suggested Materials

- |   |                   |
|---|-------------------|
| • Substrate: ULight™ - Acetyl CoA Carboxylase (Ser79)Pept.  | Revvity Inc       |
| • Antibody: Eu- anti- phospho-Acetyl CoA carboxylase(Ser79) | Revvity Inc       |
| • Kinase: AMPK $\alpha$ 1                                   | Carna Biosciences |
| • Detection Buffer: LANCE® Detection Buffer, 10X            | Revvity Inc       |
| • Plate: OptiPlate™-384, white                              | Revvity Inc       |
| • TopSeal™-A  | Revvity Inc       |

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TRF0133-R Rev01

revvity

Revvity, Inc.  
940 Winter Street  
Waltham, MA 02451 USA

(800) 762-4000 [www.revvity.com](http://www.revvity.com)

For a complete listing of our global offices, visit [www.revvity.com](http://www.revvity.com)  
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