

# 東北大学技術紹介

# Multi-targeted Kinase Inhibitor containing Liphagal or analog thereof

### Overview

The inventors found that Liphagal and its analog Siphonodictyal B inhibited multiple kinase activities in addition to PI3K. The inhibitors can be used as inhibitors of CDK7, CDK4, CDK6, PIM2, TSSK3, MST4, NEK6, MAP3K, MST3, DDR1, SPHK1, CaMK1, AurA, BRK, CaMK4 and PIM1 kinases. Studies using human colorectal cancer cells revealed that Siphonodictyal B induces expression of pro-apoptotic proteins by activation of the P38 MAPK pathway following an increase in intracellular reactive oxygen species, leading to apoptosis. In addition, Siphonodictyal B showed anti-tumor effects in a human colorectal cancer cell line tumor-transplanted mouse model.

## Related Works

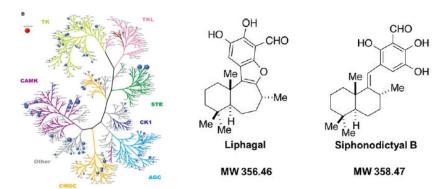
[1] Cancer Medicine 8. 85662-85672(2019)

#### **IP Data**

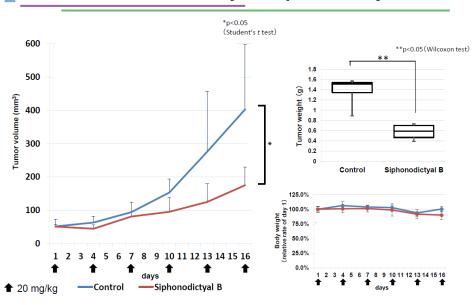
IP No. : WO2018/203564 (JP, EP, US)

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## In vivo antitumor activity of Siphonodictyal B



The tumor volume and weight were both significantly smaller in the Siphonodictyal B group than in the control group.

Body weights of mice in the Siphonodictyal B group were similar to those in control mice.

#### Contact

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