

# LIMK inhibitor CRT0105950 Small Molecule (Tool Compound)

**Catalogue number:** 151832

**Sub-type:** Inhibitor

**Images:**

## Contributor

**Inventor:** Mark Charles

**Institute:** Cancer Research Technology

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** LIMK inhibitor CRT0105950 Small Molecule (Tool Compound)

**Alternate name:**

**Class:**

**Conjugate:**

**Description:** The LIMK inhibitor CRT0105950 is a novel, selective, potent LIMK inhibitor, which inhibits p-cofilin and inhibits invasion in a Matrigel inverse invasion assay. LIMK1 has been reported to play a key role in tumour cell invasion, and the level of LIMK1 is increased in breast and prostate cancer cell lines in comparison with less invasive cell lines. The LIM kinases (LIMK1 and LIMK2) phosphorylate and inactivate cofilin which allows them to act as regulators of actin cytoskeletal dynamics and...

**Purpose:** Inhibitor

**Parental cell:**

**Organism:**

**Tissue:**

**Model:**

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:**

**Formulation:**

**Recommended controls:**

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:** % invasion inhibition at 3uM 52 % cell viability at 10uM 100

## Target details

**Target:**

**Target alternate names:**

**Target background:**

**Molecular weight:** 383.89

**Ic50:** IC50 LIMK1 0.008uMIC50 LIMK2 0.048uMIC50 Cell p-cofilin 1uM

## Applications

**Application:** The compounds exhibit low uM potency in breast cancer cells showing dose dependent inhibition of phosphorylation of the LIMK substrate cofilin. Treatment of MDA-MB-231 breast cancer cells with the compounds significantly reduces their ability to invade a matrigel plug in an inverse in vitro invasion assay. Furthermore, the inhibitors effectively reduce fibroblast-led collective invasion in a co-culture organotypic model.

**Application notes:**

## Handling

**Format:**

**Concentration:**

**Passage number:**

**Growth medium:**

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:**

**Storage conditions:**

**Shipping conditions:** Dry Ice

## Related tools

**Related tools:**

## References

**References:** Harikumar et al. 2010. Mol Cancer Ther. 9:1136-1146.PMID: 20442301

CancerTools.org