

# Protein Kinase D inhibitor CRT5 (CRT0066051) Small Molecule (Tool Compound)

**Catalogue number:** 152544

**Sub-type:** Inhibitor

**Images:**

## Contributor

**Inventor:** Mark Charles

**Institute:** Cancer Research Technology

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** Protein Kinase D inhibitor CRT5 (CRT0066051) Small Molecule (Tool Compound)

**Alternate name:**

**Class:**

**Conjugate:**

**Description:** CRT5, a novel specific PKD inhibitor, will greatly facilitate the study of the role of PKD signalling mechanisms in angiogenesis. To better understand the role of PKD in VEGF-mediated endothelial function, we characterized the effects of a novel pyrazine benzamide PKD inhibitor CRT5 in HUVECs (human umbilical vein endothelial cells). The activity of the isoforms PKD1 and PKD2 were blocked by this inhibitor as indicated by reduced phosphorylation, at Ser916 and Ser876 respectively, after VEGF ...

**Purpose:** Inhibitor

**Parental cell:**

**Organism:**

**Tissue:**

**Model:**

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:** It has little effect on a panel of additional kinases when given at 1  $\mu$ M.

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:**  
**Formulation:**  
**Recommended controls:**  
**Bacterial resistance:**  
**Selectable markers:**  
**Additional notes:**

## Target details

**Target:**

**Target alternate names:**

**Target background:**

**Molecular weight:**

**IC<sub>50</sub>:** IC<sub>50</sub>s = 1, 2, and 1.5 nM for PKD1, PKD2, and PKD3, respectively

## Applications

**Application:** PLEASE NOTE THAT THIS COMPOUND IS TOXIC IN VIVO. CRT5 blocks phosphorylation of PKD1 on Ser916 and PKD2 on Ser876, but does not affect PKC-dependent PKD phosphorylation or PKD autophosphorylation.<sup>1</sup> It also decreases VEGF-induced endothelial migration, proliferation, and tubulogenesis.

**Application notes:**

## Handling

**Format:**

**Concentration:**

**Passage number:**

**Growth medium:**

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:**

**Storage conditions:** Ambient in DMSO (12mM)

**Shipping conditions:** Dry Ice

## Related tools

**Related tools:** Protein Kinase D inhibitor CRT0066101 Small Molecule (Tool Compound)

## References

**References:** Howard et al. 2001. FEBS Lett. 498(1):82-6. PMID: 11389903.

CancerTools.org