

Anti-PKD3 kinase (CT)

CATALOG NO.: 55143

BACKGROUND

Protein kinase D (PKD), a serine/threonine kinase originally described as a novel PKC family member and termed PKCm (1), belongs to the calcium calmodulin superfamily of kinases (2-3). Three mammalian isoforms have so far been described -PKD1/PKCm, PKD2 and PKD3/PKCn; these isoforms show a high degree of homology, especially in their catalytic domain (4-5). PKDs are major targets for tumor promoting phorbol esters; they are activated via G protein-coupled receptors (GPCRs) and their activation is also dependent on PKC activation (5). PKDs have been implicated in numerous cellular functions, including signal transduction as well as cell survival, migration, differenciation, and proliferation (4-6). They are important regulators of secretary transport at the transgolgi network (7). Of the three isoforms, PKD1 is the best characterized. It is involved in the regulation of Golgi function, cell proliferation and apoptosis (8) and it mediates oxidative stress signaling regulating cellular detoxification and survival (9). PKD2 has been found to phosphorylate histone H1 more efficiently than aldolase in vitro (10). PKD3 plays a role in the formation of vesicular transport carriers at the trans-Golgi network (TGN) and in basal glucose transport in vitro studies (11-12).

SOURCE and REACTIVITY

Rabbit anti-PKD3 kinase (CT) polyclonal antibody was raised against a synthetic peptide derived from human PKD3 protein. The antibody was evaluated by western blot and ELISA assays. In western blot, an immunoreactive band at approximately 100 kDa was detected from PKD3- transfected HEK293 whole cell lysate. Species reactivity includes human, mouse, rat and chicken, while others are not tested.

APPLICATION

 Western Blot:
 0.5-2.0 μg/ml

 IHC*:
 2-5 μg/ml

 *: Recommended but not tested.



WB: HEK293T cells were transfected with Hatagged human PKD1, Flag-tagged human PKD2 and GST-tagged human PKD3. The cultures were lysed 24 hours after transfection and 100 ug of total lysate run on a 7.5% SDS-PAGE gel. Blots were then probed with Anti-PKD3 (CT) at a final concentration of 200 ng/ml in 5% milk in TBST at 4° C overnight.

This product is for in vitro research Use Only.

STORAGE

This antibody is supplied as an epitope affinity purified rabbit lgG, 50 μ g in 250 μ l (0.2 mg/ml) of 1X PBS (pH7.4) containing 0.05% sodium azide. Store at 4°C stable for one year. Avoid repeated freeze thaw cycles.

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