

Phosphodiesterase Activity Assay

A plate based fluorometric assay to measure PDE activity in a wide range of biological samples with a sensitivity into the low picomole/minute (μ U) range.

The phosphodiesterase family of enzymes plays a significant role in metabolism by regulating the levels of cyclic nucleotides, mainly cAMP and cGMP. These cyclic nucleotides are second messengers involved in a host of pathways which control many different physiological processes. PDEs catalyze the hydrolysis of cAMP and cGMP, inactivating them, leading to the termination of downstream signaling pathways. The influence of the PDE family is extensive and diverse. By controlling the levels of cAMP and cGMP, PDEs impact cell growth, differentiation, contractility, neurotransmission, and immune response. PDE Dysfunction has been linked to various diseases, including cardiovascular and neurological conditions, and cancer. PDE inhibitors have emerged as essential therapeutic agents to modulate cyclic nucleotide signaling in these diseases. The specificity and tissue distribution of the PDEs permits much flexibility in their inhibition. Different PDE isoforms exist in different cell types. PDE3 is found mainly in cardiac and vascular tissue, PDE 5 in smooth muscle cells. There are more than 20 isoforms of PDE4 alone. Understanding PDE function is important in many areas of biochemistry and medicine. AkrisBio's Phosphodiesterase Activity assay is a simple, sensitive means of measuring PDE activity in a wide range of biological samples with a sensitivity into the low picomole/minute (μ U) range.

Ordering Information

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AKR-MA-0160	100 wells
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Manuals, SDS & CofA

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Handling & Storage

Long Term Storage -20°C

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Application Fluorescent detection

Species Reactivity Species independent

Technical Info / Product Notes For the Original Manufacturer's data sheet please [click here](#).



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