

# Phospholipase Signaling Axis

Cayman Chemical offers a broad collection of research tools to study phospholipase signaling. This includes active phospholipase A<sub>2</sub> (PLA<sub>2</sub>) enzymes as well as PLA<sub>2</sub> antibodies, PLA<sub>2</sub> assays kits, and the membrane phospholipid substrates upon which they act and small molecules that prevent this activity. Autotaxin inhibitors and a companion recombinant protein and inhibitor screening assay kit, as well as phospholipase D (PLD) inhibitors, are also available. Additionally, we provide select lysophosphatidic acid (LPA) receptor polyclonal antibodies and LPA receptor modulators.

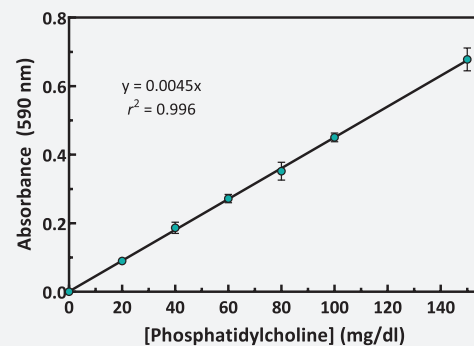


## Circulating Phospholipid Quantification

### Phosphatidylcholine Colorimetric Assay Kit

Item No. 10009926

- Measure PC in serum or plasma
- Assay 41 samples in duplicate
- **Assay Range:** 20-150 mg/dl
- Plate-based colorimetric measurement (580-600 nm)



## PLA<sub>2</sub> Research Tools

### Antibodies

Item No.	Product Name
10337	AdPLA <sub>2</sub> Polyclonal Antibody
160507	iPLA <sub>2</sub> (Type VI) Polyclonal Antibody
160500	sPLA <sub>2</sub> (human Type IIA) Monoclonal Antibody (Clone SCACC353)
160510	sPLA <sub>2</sub> (human Type V) Monoclonal Antibody (Clone MCL-3G1)
160502	sPLA <sub>2</sub> (human Type IIA) Polyclonal Antiserum
160512	sPLA <sub>2</sub> (mouse Type V) Polyclonal Antibody

### Assay Kits

Item No.	Product Name
765021	cPLA <sub>2</sub> Assay Kit
765001	sPLA <sub>2</sub> Assay Kit
501380	sPLA <sub>2</sub> (human Type IIA) ELISA Kit
10004883	sPLA <sub>2</sub> (Type V) Inhibitor Screening Assay Kit

### Active Enzymes

Item No.	Product Name
60500	sPLA <sub>2</sub> (Type III)
10009563	sPLA <sub>2</sub> (human recombinant Type V)

### Substrates

Item No.	Product Name	Specificity
62910	7-hydroxycoumarinyl Arachidonate	+cPLA <sub>2</sub>
62240	Arachidonoyl thio-PC	pan-PLA <sub>2</sub>
62235	1,2-bis(heptanoylthio) Glycerophosphocholine	+sPLA <sub>2</sub> , +iPLA <sub>2</sub>
62245	10-Pyrene-PC	+sPLA <sub>2</sub> , +iPLA <sub>2</sub>

### Inhibitors

Item No.	Product Name	Specificity
62120	Arachidonyl Trifluoromethyl Ketone	+cPLA <sub>2</sub> , +iPLA <sub>2</sub>
70700	Bromo-enol lactone	+iPLA <sub>2</sub>
10006800	(R)-Bromo-enol lactone	+iPLA <sub>2</sub> γ
13179	FKGK 11	+iPLA <sub>2</sub>
13943	FKGK 18	+iPLA <sub>2</sub>
25130	GK187	+iPLA <sub>2</sub>
25732	(±)-trans-GK563	+iPLA <sub>2</sub>
70660	Methyl Arachidonyl Fluorophosphonate	+cPLA <sub>2</sub> , +iPLA <sub>2</sub>
13294	Pyropheenone	+cPLA <sub>2</sub> α
17277	sPLA <sub>2</sub> Inhibitor	+sPLA <sub>2</sub> -IIA

Common PLA<sub>2</sub> inhibitors listed, over 30 available online

## Autotaxin Research Tools

### Protein and Antibody

Item No.	Product Name
10803	Autotaxin (human recombinant)
10005375	Lysophospholipase D Polyclonal Antibody

### Inhibitors

Item No.	Product Name
27264	BMP-22
10498	HA-130
11034	HA-155
10010299	Oleoyl 3-carbacyclic Phosphatidic Acid
10010298	Palmitoleoyl 3-carbacyclic Phosphatidic Acid
10010293	Palmitoyl 3-carbacyclic Phosphatidic Acid
12018	PF-8380
13664	S32826

### PLD Inhibitors

Item No.	Product Name	Summary
13207	CAY10594	PLD <sub>2</sub> inhibitor, both <i>in vitro</i> (IC <sub>50</sub> = 140 nM) and in cells (IC <sub>50</sub> = 110 nM)
13563	FIPI	Inhibits both PLD <sub>1</sub> (IC <sub>50</sub> = 25 nM) and PLD <sub>2</sub> (IC <sub>50</sub> = 20 nM)
13205	Halopemide	PLD <sub>1</sub> and PLD <sub>2</sub> inhibitor <i>in vitro</i> (IC <sub>50</sub> = 220 and 310 nM, respectively)
15349	ML-298	PLD <sub>2</sub> inhibitor (IC <sub>50</sub> = 355 nM)
17632	ML-299	PLD <sub>1</sub> and PLD <sub>2</sub> inhibitor (IC <sub>50</sub> s = 6 and 20 nM, respectively)
10955	VU0359595	Inhibitor of PLD <sub>1</sub> (IC <sub>50</sub> = 3.7 nM)

## LPA Receptor Research Tools

### Antibodies

Item No.	Product Name	Summary
10005280	LPA <sub>1</sub> Polyclonal Antibody	<b>Immunogen:</b> Human protein LPA <sub>1</sub> • <b>Host:</b> Rabbit • <b>Applications:</b> ICC, IHC, WB
10004840	LPA <sub>3</sub> Polyclonal Antibody	<b>Immunogen:</b> Mouse protein LPA <sub>3</sub> • <b>Host:</b> Rabbit • <b>Applications:</b> ICC, WB

### Agonists

Item No.	Product Name
21900	GRI-977143
10010164	1-Octadecyl Lysophosphatidic Acid*
10010093	1-Oleoyl Lysophosphatidic Acid*
10005707	(2S)-OMPT
10010094	1-Palmitoyl Lysophosphatidic Acid*

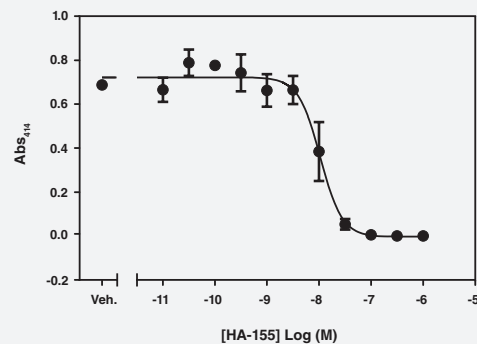
\*Also available: sodium salt form

## Screen for Inhibitors of Autotaxin

### Autotaxin Inhibitor Screening Assay Kit

Item No. 700580

- Assay 45 samples in duplicate
- Plate-based colorimetric measurement
- Includes HA-155 as a positive control



Inhibition of human recombinant ATX by HA-155

### Antagonists

Item No.	Product Name
22048	AM966
22049	BMS 986020
14663	H2L5186303
10012659	Ki16425
22051	LPA <sub>2</sub> Antagonist 1

To view a complete list of our Phospholipase research tools, visit us online at [www.caymanchem.com](http://www.caymanchem.com)

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