



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
Tel: 1.858.202.1401  
Fax: 1.858.481.8694  
Email: info@bpsbioscience.com

**Data Sheet**  
**SRC Assay Kit**  
Catalog #79680  
96 Reactions

**DESCRIPTION:** SRC is a member of the nonreceptor tyrosine kinases that plays a role in many cellular functions, including cell adhesion, growth, and differentiation. SRC has been implicated in diseases such as chronic kidney disease and metastatic bone disease. The *SRC Assay Kit* is designed to measure SRC activity for screening and profiling applications using Kinase-Glo<sup>®</sup> MAX as a detection reagent. The *SRC Assay Kit* comes in a convenient 96-well format, with enough purified recombinant SRC enzyme, Protein Tyrosine Kinase Substrate (Poly-Glu,Tyr 4:1), ATP, and kinase assay buffer for 100 enzyme reactions.

**COMPONENTS:**

Catalog #	Reagent	Amount	Storage	
40484	SRC, His-tag	>1 µg	-80°C	<b>Avoid multiple freeze/ thaw cycles!</b>
79334	5x Kinase assay buffer	1.5 ml	-20°C	
79686	ATP (500 µM)	100 µl	-20°C	
40217	Protein Tyrosine Kinase Substrate (Poly-Glu,Tyr 4:1) (10 mg/ml)	100 µl	-20°C	
79696	96-well plate, white	1	Room Temp.	

**MATERIALS OR INSTRUMENTS REQUIRED BUT NOT SUPPLIED:**

Kinase-Glo MAX (Promega #V6071)  
Dithiothreitol (DTT, 1 M; optional)  
Microplate reader capable of reading luminescence  
Adjustable micropipettor and sterile tips  
30°C incubator

**APPLICATIONS:** Useful for studying enzyme kinetics and screening small molecular inhibitors for drug discovery and HTS applications.

**STABILITY:** Up to 6 months when stored as recommended.

**REFERENCE:**

1. Vidal, M., *et al.* Differing Src signaling levels have distinct outcomes in *Drosophila*; 2007, *Cancer Res.* **67(21)**: 10278—10285.
2. Wan, J. and Zhuang, S. Src Family Kinases in Chronic Kidney Disease; 2017, *Amer. J. Physiol. Renal Physiol.* **313(3)**: F721–F728.

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
Tel: 1.858.202.1401  
Fax: 1.858.481.8694  
Email: info@bpsbioscience.com

#### ASSAY PROTOCOL:

*All samples and controls should be tested in duplicate.*

- 1) Thaw **5x Kinase assay buffer**, **ATP (500  $\mu$ M)**, and **Protein Tyrosine Kinase Substrate (Poly-Glu,Tyr 4:1)**.  
(Optional: If desired, add DTT to **5x Kinase assay buffer** to make a 10 mM concentration; e.g. add 10  $\mu$ l of 1 M DTT to 1 ml **5x Kinase assay buffer**)
- 2) Prepare the master mixture (25  $\mu$ l per well): N wells x (10  $\mu$ l **5x Kinase assay buffer** + 1  $\mu$ l **ATP (500  $\mu$ M)** + 1  $\mu$ l **Protein Tyrosine Kinase Substrate (Poly-Glu,Tyr 4:1)** + 13  $\mu$ l water). Add 25  $\mu$ l to every well.

	Positive Control	Test Inhibitor	Blank
5x Kinase assay buffer	10 $\mu$ l	10 $\mu$ l	10 $\mu$ l
ATP (500 $\mu$ M)	1 $\mu$ l	1 $\mu$ l	1 $\mu$ l
Poly-Glu,Tyr(10 mg/ml)	1 $\mu$ l	1 $\mu$ l	1 $\mu$ l
Water	13 $\mu$ l	13 $\mu$ l	13 $\mu$ l
Test Inhibitor	-	5 $\mu$ l	-
Inhibitor Buffer	5 $\mu$ l	-	5 $\mu$ l
1x Kinase buffer (no inhibitor)	-	-	20 $\mu$ l
SRC (1.5 ng/ $\mu$ l)	20 $\mu$ l	20 $\mu$ l	-
Total	50 $\mu$ l	50 $\mu$ l	50 $\mu$ l

- 3) Add 5  $\mu$ l of Inhibitor solution of each well labeled as "Test Inhibitor." For the "Positive Control" and "Blank," add 5  $\mu$ l of the same solution without inhibitor (Inhibitor buffer).
- 4) Prepare 3 ml of **1x Kinase assay buffer** by mixing 600  $\mu$ l of **5x Kinase assay buffer** with 2400  $\mu$ l water. 3 ml of **1x Kinase assay buffer** is sufficient for 100 reactions.
- 5) To the wells designated as "Blank," add 20  $\mu$ l of **1x Kinase assay buffer**.
- 6) Thaw **SRC** on ice. Upon first thaw, briefly spin tube containing enzyme to recover full content of the tube. Calculate the amount of **SRC** required for the assay and dilute enzyme to 1 ng/ $\mu$ l with **1x Kinase assay buffer**. Store remaining undiluted enzyme in aliquots at -80°C. *Note: SRC enzyme is sensitive to freeze/thaw cycles. Avoid multiple freeze/thaw cycles. Do not re-use thawed aliquots or diluted enzyme.*

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

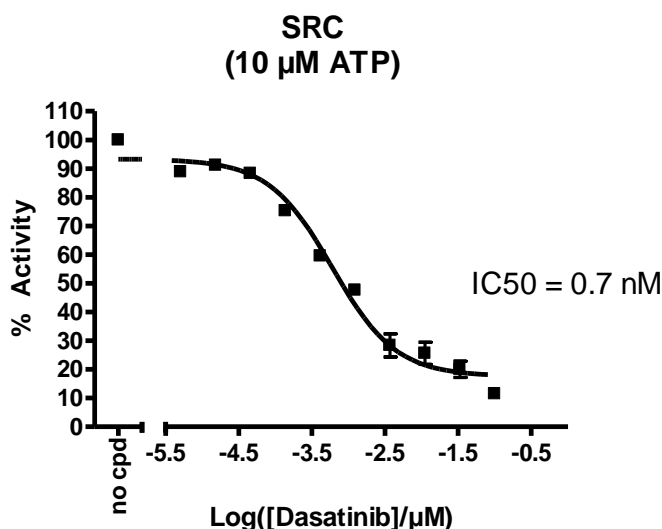
To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)

- 7) Initiate reaction by adding 20  $\mu$ l of diluted **SRC** to the wells designated "Positive Control" and "Test Inhibitor Control." Incubate at 30°C for 45 minutes.
- 8) Thaw Kinase-Glo Max reagent.
- 9) After the 45 minute reaction, add 50  $\mu$ l of Kinase-Glo Max reagent to each well. Cover plate with aluminum foil and incubate the plate at room temperature for 15 minutes.
- 10) Measure luminescence using the microplate reader.

**Example of Assay Results:**



Inhibition of SRC by Dasatinib, measured using the SRC assay kit (BPS Bioscience #79680). *Data shown is lot-specific. For lot-specific information, please contact BPS Bioscience, Inc. at info@bpsbioscience.com*

**RELATED PRODUCTS:**

<u>Product Name</u>	<u>Catalog #</u>	<u>Size</u>
SRC, GST-tag	40483	10 $\mu$ g
SRC, His-tag	40484	10 $\mu$ g
Yes1, GST-tag	40488	10 $\mu$ g
CSK, GST-tag	40410	10 $\mu$ g
LCK, GST-tag	40470	10 $\mu$ g
Protein Tyrosine Kinase Substrate (poly-Glu,Tyr 4:1)	40217	1 mg

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)