



## rapidSTART™

NADPH Regenerating System

Kick start your results with RapidStart™  
XenoTech's NADPH Regenerating System

XenoTech's RapidStart™ NADPH Regenerating system offers customers a one-step solution to activating the system. Just add water; it's that easy!

### Application

NADPH is a cofactor which is required to support reactions catalyzed by drug metabolizing enzymes such as cytochrome P450 (CYP) and flavin-containing monooxygenases (FMO). Microsomes, S9 or Recombinant CYPs (Bactosomes) can be fortified with the NADPH regenerating system to support the long-term metabolism of drug/test articles by these enzymes. The RapidStart™ system maintains a suitable concentration of NADPH for 12 hours at room temperature and for 48 hours at 2-4°C.

### One Vial, Three Pellets

The RapidStart™ system is packaged frozen in a single 7mL, durability-tested polycarbonate vial.

The NADPH system consists of three pellets:

- NADP (0.5mL or 0.1mL)
- Glucose-6-phosphate dehydrogenase (0.5mL or 0.1mL)
- Glucose-6-Phosphate (0.5mL or 0.1mL)

### Add. Agitate. Activate.

RapidStart™ is not only easily activated, but also the most flexible pre-packaged NADPH regenerating system on the market, allowing users to easily manipulate the system concentration by varying the amount of water added. Our dilution concentration table (*below*) makes preparation simple.

#### Preparation Procedure

- 1) Determine the desired initial concentration using the included table on the product data sheet
- 2) **Add:** Add the appropriate amount of high purity water for the desired concentration
- 3) **Agitate:** Vortex until pellets are fully dissolved
- 4) **Activate:** NADPH regenerating system has been activated and is ready for use

RapidStart™ Dilution Concentration Table

Water Added (mL)	NADP (mM)		G6P (mM)		G6PDH (units/mL)		Total Volume (mL)
	As Prepared	10 fold incubation	As Prepared	10 fold incubation	As Prepared	10 fold incubation	
0.00	100.00	10.00	500.00	50.000	100.00	10.000	1.5
0.50	25.00	2.50	125.00	12.500	25.00	2.500	2.00
1.00	20.00	2.00	100.00	10.000	20.00	2.000	2.50
2.00	14.29	1.43	71.43	7.143	14.29	1.429	3.50
2.50	12.50	1.25	62.50	6.250	12.50	1.250	4.00
3.00	11.11	1.11	55.56	5.556	11.11	1.111	4.50
* 3.50	10.00	1.00	50.00	5.000	10.00	1.000	5.00
4.00	9.09	0.91	45.45	4.545	9.09	0.909	5.50
4.50	8.33	0.83	41.67	4.167	8.33	0.833	6.00
5.00	7.69	0.77	38.46	3.846	7.69	0.769	6.50
5.50	7.14	0.71	35.71	3.571	7.14	0.714	7.00
6.00	6.67	0.67	33.33	3.333	6.67	0.667	7.50
6.50	6.25	0.63	31.25	3.125	6.25	0.625	8.00
7.00	5.88	0.59	29.41	2.941	5.88	0.588	8.50
7.50	5.56	0.56	27.78	2.778	5.56	0.556	9.00
8.00	5.26	0.53	26.32	2.632	5.26	0.526	9.50
8.50	5.00	0.50	25.00	2.500	5.00	0.500	10.00

\*Suggested concentration for best results (product K5000 only)

### Stability

Once activated, RapidStart™ maintains a suitable concentration of NADPH for 12 hours at room temperature or 48 hours at 2-4°C, allowing for multi-day use of the NADPH regenerating system.

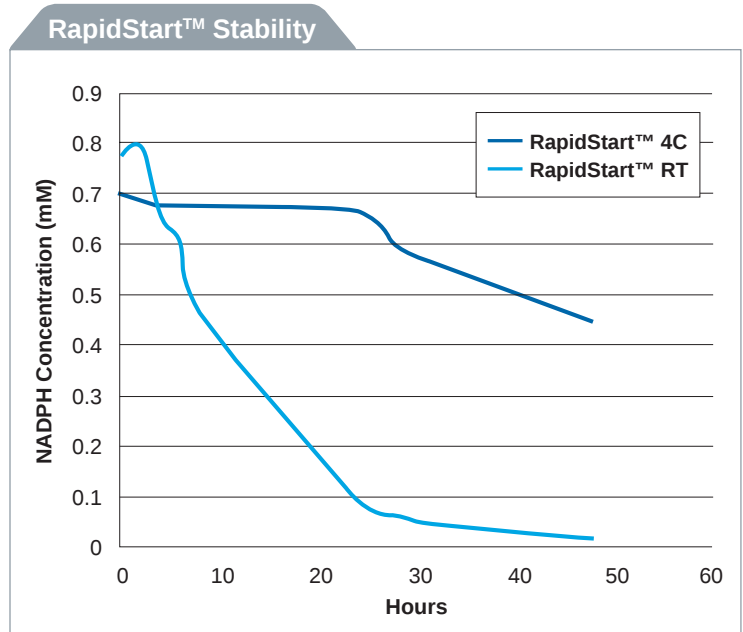
### Value

The RapidStart™ system is not only versatile, convenient and quick; it's also affordable. No more ordering separate components or mixing different solutions; RapidStart™ includes all of the components needed in a single vial.

Product ID	Volume
K5000	1.5mL
K5000-10 (10 vials)	
K5100	0.3mL
K5100-5 (5 vials)	

### Features

- Versatile: Perfect for short- and long-term incubations
- Flexible: Adjustable concentration
- Convenient: All-in-one, easy to use system



Note: NADPH concentration measured over time at 4°C (4C) and at room temperature (RT)

Order this product online at [www.xenotech.com](http://www.xenotech.com) or contact a customer service representative at **913.438.7450**.