

# Mycobacterium tuberculosis, Strain H37Rv, Gamma-Irradiated Whole Cells Kit Containing Hypoxic and Normoxic Cultures

## Catalog No. NR-48696

This reagent is the tangible property of the U.S. Government.

**Product Description:** NR-48696 is a kit comprised of gamma-irradiated cells from two preparations of *Mycobacterium tuberculosis* (*M. tuberculosis*), strain H37Rv.

**Lot: 70024127**

Production and QC testing were performed by Colorado State University (CSU). The CSU documentation for bulk lots 18.Rv.2.11.31.4.WCg.Hypoxic and 18.Rv.2.11.31.4.WCg.Normoxic is attached. The kit was assembled by BEI Resources on 15APR2019.

KIT COMPONENT	BEI RESOURCES PRODUCT AND LOT NUMBERS	CSU LOT NUMBER	MANUFACTURING DATE
<i>M. tuberculosis</i> , Strain H37Rv, Irradiated Cells (hypoxic culture)	NR-36493 lot 70017944	18.Rv.2.11.31.4.WCg.Hypoxic <sup>1</sup>	22DEC2018
<i>M. tuberculosis</i> , Strain H37Rv, Irradiated Cells (normoxic culture)	NR-36494 lot 70017945	18.Rv.2.11.31.4.WCg.Normoxic <sup>2</sup>	19DEC2018

<sup>1</sup>*M. tuberculosis*, strain H37Rv hypoxic culture was grown to early log phase in glycerol-alanine-salts medium for 4 days in a bioreactor. The cells were sparged with nitrogen gas to slowly deplete oxygen. The cells were grown an additional 10 days and harvested.

<sup>2</sup>*M. tuberculosis*, strain H37Rv normoxic culture was grown to mid log phase in glycerol-alanine-salts medium for 10 days in a bioreactor. The cells were sparged with air and harvested.

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## WORK SHEET FOR $\gamma$ -IRRADIATED CELLS

### General Information

Lot Number: 18.Rv.2.11.31.4.WCg.Hypoxic

Species: M. tuberculosis

Strain: H37Rv

### Growth Conditions:

Medium: GAS

# of Fermentors: 1 (4L)

Inoculation Date: 11/31/18 Harvest Date: 12/13/18

SOP # used for Harvest: PP040.1

Wet Weight: 28.1g

Date irradiated: 12/22/18 By: AS

### Alamar Blue QC Information

Date Started: 01/07/19 Date Checked: 01/09/19

Positive Control: Positive X Negative       

Sample: Positive        Negative X

### Aliquot Information

1x 28.1g in 230ml conical tube.

See graph for dissolved oxygen (DO) log.

X *Philip Zuber* 01/19/19

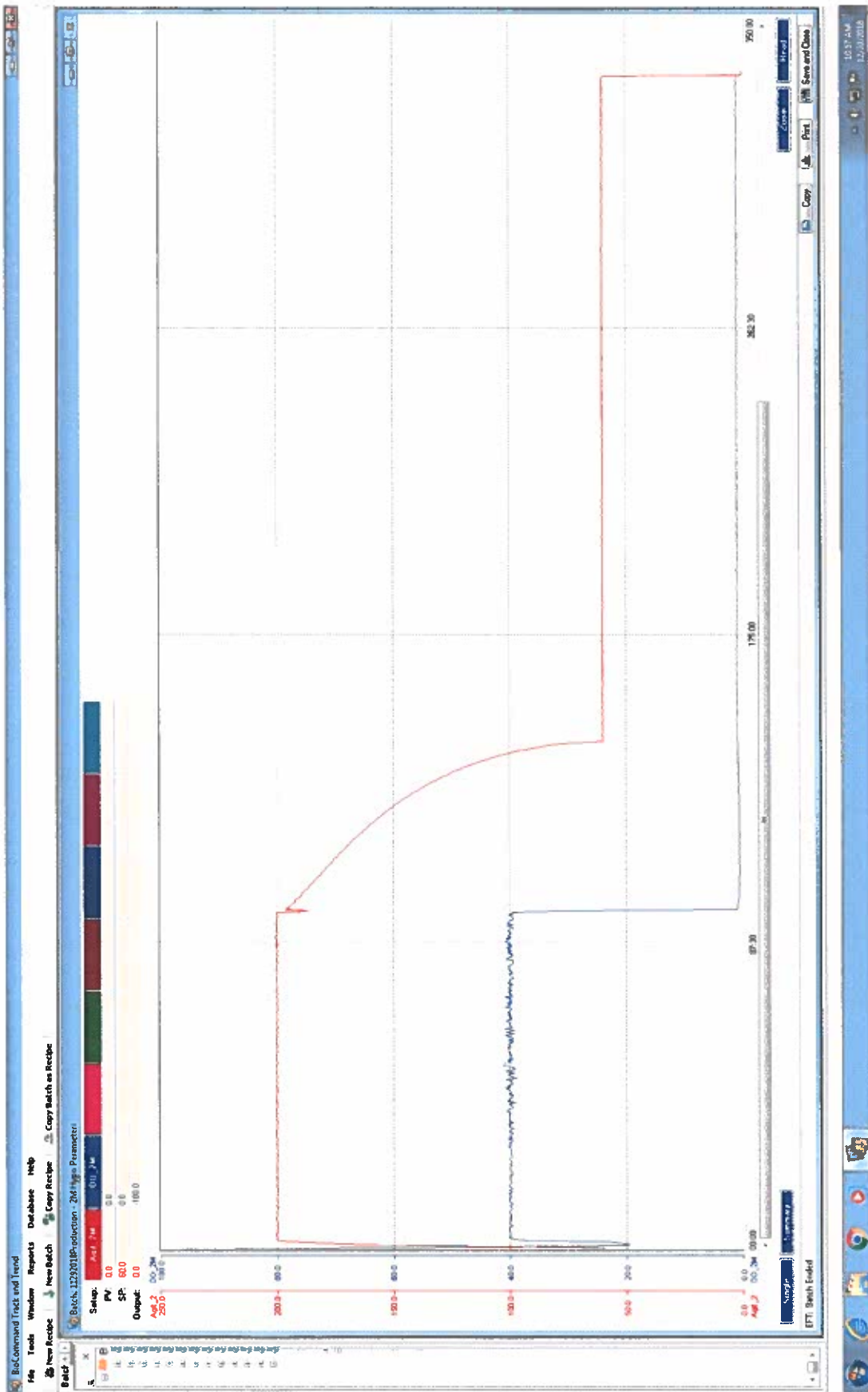
(Research Associate)

(date)

X *C. McHaffey* 1/14/19

(Laboratory Supervisor)

(date)



Initial 0 hr 570/600			
raw	1-7-19.	0.78	0.70
18.Rv.2.11.31.4.Hypoxic.WC		0.79	0.71
		0.79	0.69
		0.75	0.70
		0.69	0.68

Initial Minus Blank				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.08	-0.01	-0.02	-0.01
	0.08	0.00	-0.01	-0.01
	0.08	-0.02	-0.02	-0.04
Pos. Cont.	0.04	-0.01	-0.02	-0.03

Initial Average				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.08	-0.01	-0.02	-0.02
Pos. Ctrl.	0.04	-0.01	-0.02	-0.03

Sample .1	Sample .01	Pos .1	Pos .01
0	0.08	-0.01	0.04
24	0.11	0.01	3.27
48	0.13	0.01	3.37

24hr 570/600			
1-8-19.		0.82	0.73
		0.82	0.73
		0.83	0.73
		3.99	0.89
		0.73	0.71

24hr Minus Blank				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.10	0.01	0.00	0.00
	0.10	0.01	0.00	0.00
	0.11	0.01	0.00	0.00
Pos. Cont.	3.27	0.17	0.01	0.00

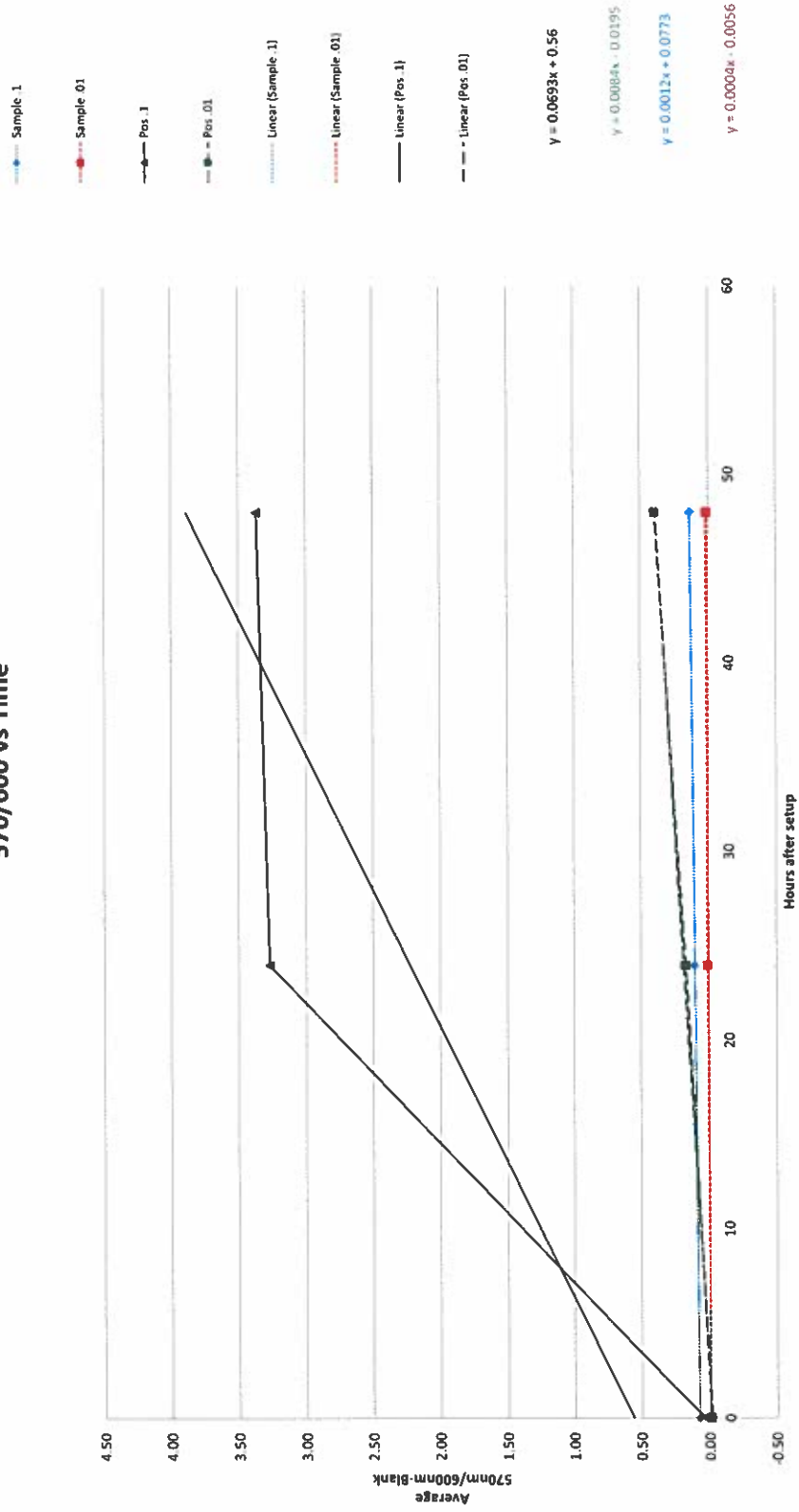
24hr Average				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.11	0.01	0.00	0.00
Pos. Ctrl.	3.27	0.17	0.01	0.00

48 hr 570/600			
1-9-19		0.86	0.73
		0.87	0.74
		0.87	0.73
		4.10	1.12
		0.74	0.73
		0.73	0.73

48hr Minus Blank				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.13	0.01	0.00	-0.01
	0.14	0.01	0.00	0.00
	0.13	0.01	0.00	0.00
Pos. Cont.	3.37	0.39	0.03	0.00

48hr Average				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.13	0.01	0.00	0.00
Pos. Ctrl.	3.37	0.39	0.03	0.00

570/600 vs Time



## WORK SHEET FOR $\gamma$ -IRRADIATED CELLS

### General Information

Lot Number: 18.Rv.2.11.31.4.WCg.Normoxic

Species: M. tuberculosis

Strain: H37Rv

### Growth Conditions:

Medium: GAS

# of Fermentors: 1 (4L)

Inoculation Date: 11/31/18 Harvest Date: 12/10/18

SOP # used for Harvest: PP040.1

Wet Weight: 78.5g

Date irradiated: 12/19/18 By: AS

### Alamar Blue QC Information

Date Started: 01/07/19 Date Checked: 01/09/19

Positive Control: Positive X Negative       

Sample: Positive        Negative X

### Aliquot Information

1x 78.5g in 230ml conical tube.

See graph for dissolved oxygen (DO) log.

Vessel harvested at day 11 (instead of day 10) due to schedule conflict.

X *[Signature]* 01/14/19

(Research Associate)

(date)

X *C. Delaney* 1/14/19

(Laboratory Supervisor)

(date)



Initial 0 hr 570/600	
raw	1-7-19.
18.Rv.2.11.31.4.Normoxic.Wf	0.76 0.72 0.72 0.72 0.72
	0.75 0.72 0.70 0.72 0.72
	0.78 0.73 0.73 0.73 0.73
	0.75 0.70 0.69 0.69 0.68

Initial Minus Blank				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.05	0.01	0.01	0.01
	0.04	0.01	-0.01	0.01
	0.07	0.02	0.03	0.02
Pos. Cont.	0.04	-0.01	-0.02	-0.03

Initial Average				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.06	0.01	0.01	0.01
Pos. Ctrl	0.04	-0.01	-0.02	-0.03

	Sample .1	Sample .01	Pos .1	Pos .01
0	0.06	0.01	0.04	-0.01
24	0.05	0.01	3.27	0.17
48	0.06	0.01	3.37	0.39

24hr 570/600	
1-8-19.	0.77 0.72 0.72 0.72 0.72
	0.77 0.72 0.72 0.72 0.72
	0.77 0.73 0.72 0.72 0.72
	3.99 0.89 0.73 0.71 0.71

24hr Minus Blank				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.05	0.01	0.00	0.00
	0.05	0.01	0.00	0.00
	0.05	0.01	0.00	0.00
Pos. Cont.	3.27	0.17	0.01	0.00

24hr Average				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.05	0.01	0.00	0.00
Pos. Ctrl.	3.27	0.17	0.01	0.00

48 hr 570/600	
1-9-19.	0.79 0.74 0.73 0.73 0.73
	0.79 0.74 0.73 0.73 0.73
	0.79 0.74 0.73 0.73 0.73
	4.10 1.12 0.76 0.73 0.73

48hr Minus Blank				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.05	0.00	0.00	0.00
	0.06	0.01	0.00	0.00
	0.06	0.01	0.00	0.00
Pos. Cont.	3.37	0.39	0.03	0.00

48hr Average				
	OD .1	OD .01	OD .001	OD.00001
Sample	0.06	0.01	0.00	0.00
Pos. Ctrl.	3.37	0.39	0.03	0.00

570/600 vs Time

