

## Certificate of Analysis for NR-14821

## Mycobacterium tuberculosis, Strain HN878, Gamma-Irradiated Whole Cells

## Catalog No. NR-14821

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

**Product Description:** *Mycobacterium tuberculosis* (*M. tuberculosis*), strain HN878, was grown to late-log phase in glycerol-alanine-salts medium and inactivated by exposure to 2.4 mRads of ionizing gamma irradiation using a <sup>137</sup>Cs source. Confirmation of inactivation was performed by Alamar blue Assay. A dose of 2.4 mRads of gamma irradiation kills *M. tuberculosis* to a 10<sup>20</sup> degree of certainty while maintaining 93% to 95% of the biological activity of the enzymes.

Lot: 61977654 Manufacturing Date: 25OCT2013

Production and QC testing were performed by Colorado State University (CSU). The CSU documentation for bulk lot 13.HN878.10.1.8.WCg is attached.

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the contractor to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection. You are authorized to use this product for research use only. It is not intended for human use.

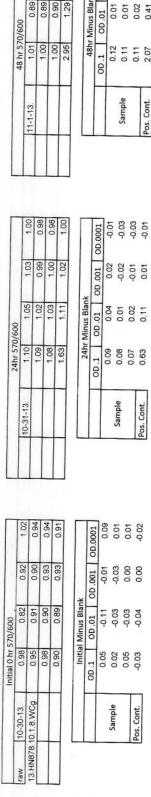
BEI Resources www.beiresources.org E-mail: contact@beiresources.org
Tel: 800-359-7370

Fax: 703-365-2898

## WORK SHEET FOR γ-IRRADIATED CELLS

2			
General Information			
Lot Number:13.HN87 Species: M. tuberculosis Strain: HN878	8.10.1.8.WCg		
Growth Conditions:	Medium: GAS # of Fernbachs: 8 Inoculation Date: 10.1.13 SOP # used for Harvest: Pl	# of Roller bottles: <u>0</u> Harvest Date: <u>10.15.13</u> P003.3 1/11/13 version	
Wet Weight: 59.8g	_		
Date irradiated: 10.25.13	<u>B</u> By: <u>IC</u>		
Alamar Blue QC Inform	ation		
Date Started: 10.30.13	Date Checked: 11.1.13		
Positive Control: Positive	X Negative		
OD =.1 change: (	0.0437		
Sample: PositiveN	legativeX		
OD=.1 change: 0. Aliquot Information 1 x 59.8g in 230ml falc			
he	11-4-13	Hall)	11/4/20,
(Research Associate)	(date)	(Laboratory Supervisor)	(date)

(Laboratory Supervisor)



0.89 0.89 0.89 0.89		OD .001 OD.0001	0.00	0.01	OD.0001	_	L
0.89	1	ž o		0	0D.001	00'0	0.01
0	1.29	48hr Minus Blank 1 OD .01	0.01	7 0.41	OD .01	0.01	0.41
48 hr 570/600 1.01 1.00	2.95	48hr 0D.1	0.12	2.07	1.00	0.12	2.07
11-1-13.			Sample	Pos. Cont.		Sample	Pos. Ctrl.
0.98	1.00	00.0	-0.03		OD.(		-0.01
1.03	1.02	90	0.02 -0.02 -0.01	0.01	OD .001	0.00	0.01
1.10 1.05 1.09 1.02 1.08 1.02	.63 1.11 24hr Minus Blank	00.01	0.04	3 0.11 24hr Average	0D.01	0.02	0.11
1.09 1.09	1.63 24hr	0D.1	0.08	241	0D.1	80.0	7.03

						Sample		Pos. Cont.			Samula	Pos. Ctrl						
0.94	0.91			OD.0001	60.0	0.01	0.01	-0.02	Γ	OD.0001	0.04	-0.02				3		
0.93	0.93		¥	0D .001	-0.01	-0.03	0.00	00.00		0D.001	-0.01	0.00		Pos .01	-0.04	0.11	0.41	
			al Minus Bla	0D.01					tial Average	0D.01	-0.05	-0.04			-0.03	0.63	2.07	
0.98	0.90		Initi	0D.1	0.05	0.05	0.05	-0.03	Ē	0D.1	0.04	-0.03		Sample .01	-0.05	0.02	0.01	
						Sample		Pos. Cont.			Sample	Pos. Ctrl.		Sample .1	0 0.04	4 0.08	8 0.12	
		0.90 0.93	0.90 0.93	0.90 0.93 0.89 0.93	0.90 0.93 0.93 0.93 0.93 0.99 0.99 0.99	0.98 0.90 0.93 0.90 0.90 0.90 0.90 0.90 0.90	tital Minus Blank  OD.01 OD.01 OD.001 OD.0001  C -0.03 -0.03 0.01	0.96   0.90   0.93   0.93   0.90   0.93   0.93   0.90   0.93	0.96 0.96 0.93 0.94 0.91 0.94 0.99 0.91 0.99 0.91 0.99 0.91 0.99 0.91 0.90 0.91 0.90 0.91 0.90 0.91 0.90 0.92 0.03 0.01 0.05 0.03 0.01 0.05 0.03 0.01 0.05 0.03 0.01 0.05 0.03 0.01 0.05 0.03 0.00 0.01 0.05 0.03 0.00 0.01	0.96 0.90 0.93 0.94    0.90 0.89 0.93 0.91	0.98	0.36	0.36   0.90   0.93   0.94     0.39   0.89   0.93   0.91     0.39   0.89   0.93   0.91     1ntial Average   0.00   0.00     0.01   0.05   0.00   0.00     1ntial Average   0.02   0.00   0.01     0.02   0.03   0.00   0.01     0.01   0.05   0.00   0.01     0.01   0.04   0.00   0.01     0.04   0.05   0.01   0.004     0.05   0.01   0.004     0.06   0.01   0.004     0.07   0.005   0.01     0.08   0.005   0.001     0.09   0.005   0.001     0.09   0.005   0.001     0.005   0.005   0.001     0.006   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.001     0.007   0.005   0.005	0.36   0.90   0.93   0.94     0.90   0.89   0.93   0.91     0.90   0.89   0.93   0.91     1nitial Minus Blank	0.98   0.90   0.93   0.94	0.98   0.90   0.93   0.94	0.98   0.90   0.93   0.94	0.96   0.90   0.93   0.94

570/600 vs Time			
570/		٠	
	2.50		

