TECHNICAL DATA SHEET

Light Producing Microorganisms

Caution: For Research Use. This product is intended for animal research only and not for use in humans. Not for human or animal therapeutic or diagnostic use.

Escherichia coli E. coli WS2572 (Xen14)

Product No.: 119223

Material Provided: 1 Agar Plate **Storage Conditions:** -80°C

In vitro Characteristics

Genetic Characteristics

Escherichia coli—Xen14 was derived from the parental strain Escherichia coli WS2572, a clinical isolate from Weihenstephan Culture Collection. E. coli-Xen14 possesses a stable copy of the *Photorhabdus luminescens lux* operon on the bacterial chromosome.

Growth Characteristics

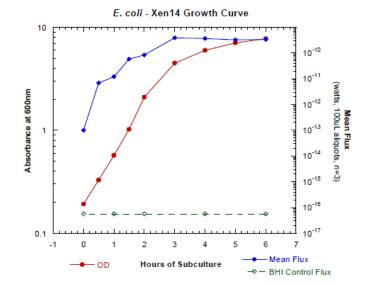
E. coli-Xen14 grows well in Luria Bertani (LB) medium at 37°C under ambient aeration. *E. coli*-Xen14 may also be grown selectively on LB agar containing 30μg/mL Kanamycin.

Colonial Morphology

On LB plates, the *E. coli*-Xen14 appears as medium (~2mm), translucent, conical colonies after 24 hours incubation at 37°C.

Growth Curve

Log-phase growth can be achieved after 1 to 1.5 hours of subculture in LB broth at 37°C, shaking at 150-200 rpm. For the above broth culture conditions, an absorbance measurement at 600nm (against a LB blank) of 1.0 is roughly equivalent to 1.1x10⁹ cfu/mL of *Escherichia coli*—Xen14 and the relative light intensity is 1.01 photons/sec/cell.





Biochemical Profile

A biochemical profile was obtained for *E. coli-Xen14* using the api 20E system available from bioMérieux.

Sugar Utilization	
Glucose	+
Mannitol	+
Inositol	-
Sorbitol	-
Rhamnose	+
Sucrose	+
Melibose	+
Amygdalin	-
Arabinose	+

Other Tests	
β-galactosidase	
Arginine Dihydrolase	
Lysine Decarboxylase	-
Ornithine Decarboxylase	-
Citrate Utilization	-
H2S Production	
Urease	-
Tryptophan Deaminase	-
Indole Production	
Voges Proskauer	-
Gelatinase	-
Oxidase	-

Antibiotic Susceptibility

Disk Diffusion Data: Disk diffusion tests were performed according to methods outlined in the NCCLS Approved Standard M2-A7.

Kirby-Bauer Disk Diffusion Test	
Sensitive to:	Resistant to:
Chloramphenicol 30	Carbenicillin 100
Tetracycline 30	Kanamycin 30
Trimethoprim/ Sulfamethoxazole	Streptomycin 10
Gentamicin 10	Cephalothin 30
	Ampicillin 10

References

- Infection & Immunity, Aug. 2005, 4512-4521
- 2. Antimicrobial Agents & Chemotherapy, Jan. 2001, p129-137

Product Information

Warranty

PerkinElmer warrants that cells will be viable upon shipment from PerkinElmer for a period of thirty days, provided they have been properly stored and handled during this period.

Disclaimers

This product is sold for *in vivo* animal research use only and is not for use in any diagnostic procedures. Excluding purchases by authorized PerkinElmer distributors, this product is sold for use by the original purchaser and is not for resale.

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