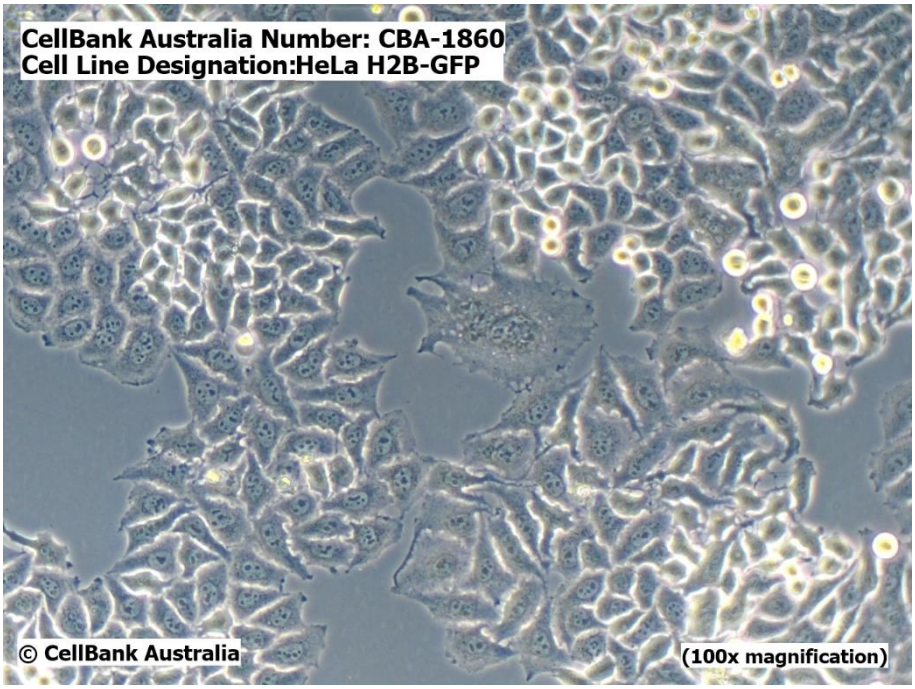
Confidence in cell lines. Integrity in research.

Cell Line Information Sheet – HeLa H2B-GFP

CellBank Catalogue No.:	**CBA-1860**
Lot Number:	**18600919E**
Passage Number:	p13
Total Cell Number:	2.44x 10^6 cells
Expected Cell Viability:	94%
Cell Line Description:	HeLa cells transduced with Retrovirus to stably express H2B tagged with GFP, from pWZL backbone, and sorted for low expression,
Organism:	Human (*Homo sapiens*)
Tissue:	Cervix
Growth Properties:	Adherent
Morphology:	Epithelial like
Image:	

CHILDREN'S MEDICAL RESEARCH INSTITUTE
Jeans for Genes®

CellBank Australia operated by Children's Medical Research Institute
214 Hawkesbury Rd Westmead NSW 2145 Australia
phone. +61 2 8865 2850 fax: +61 2 8865 2801
cellbank@cmri.org.au
cellbankaustralia.com

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Growth Medium:	DMEM (high glucose)+10% BGS+1% NEAA+1% Glutamax +100ug/mL Hygromycin
Resuscitation	**Remove protective cryoflex layer around the ampoule prior to thawing.** Thaw the ampoule by gently agitating in a 37°C waterbath; thawing should be rapid (around 2 minutes). A centrifugation step to remove the cryoprotectant after thawing is necessary for this cell line. Lot #**18600919E** may take 48 hours to seed and recover from thaw.
Subculturing Procedure:	**Medium Renewal:** 2-3 times per week. **Subcultivation ratio**: 1:8-1:16, seeding density 0.8-1.0 x10^4 cells/cm^2 Split subconfluent cultures (70-80%). Harvest the cells using 0.05% Trypsin/EDTA at 37°C for 5 minutes. **Culture conditions:** Incubate the culture at 37°C with 10% CO_2. **Cryoprotectant Medium:** 10% DMSO + 90% FCS
Safety Precaution:	Where cell lines are shipped as frozen ampoules, there is a small risk that the ampoule may be pressurised due to the expansion of trapped liquid nitrogen and could explode on warming. It is recommended that persons handling ampoules of frozen cells wear appropriate personal protective equipment including laboratory coat, insulated gloves and a full protective face shield.
Handling Procedure for Frozen Cells:	Upon receipt, frozen ampoules should be transferred directly to liquid nitrogen storage without delay, if not to be used immediately. Storage at -80°C may result in loss of viability
Biosafety Level:	Cell line of human origin. CellBank Australia recommends that cell lines be handled at category PC-2* containment level. *AS/NZS 2243.3:2010

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Additional Information:	One of a pair of HeLa derivatives genetically modified to carry fluorescently tagged histone H2B proteins. H2B is a core component of the nucleosome, where it plays an important role in transcriptional regulation, DNA repair, and other essential cellular functions. This cell line, HeLa H2B-GFP, carries H2B tagged with eGFP. The second cell line, HeLa-2FP, carries both a H2B tagged with eGFP and H2B tagged with mCherry. Expression of both proteins enabled study of chromatin compaction in live cells using FLIM-FRET microscopy. The cell lines were published in PNAS in 2019, where they were used to study the remodelling of chromatin architecture at double-strand break sites during DNA repair.
Depositor:	Tony Cesare- Children's Medical Research Institute, Westmead, Australia
References:	**Original Reference** Jieqiong Lou, Lorenzo Scipioni, Belinda K. Wright, Tara K. Bartolec, Jessie Zhang, V. Pragathi Masamsetti, Katharina Gaus, Enrico Gratton, Anthony J. Cesare, and Elizabeth Hinde Phasor histone FLIM-FRET microscopy quantifies spatiotemporal rearrangement of chromatin architecture during the DNA damage response PNAS 2019 Apr 9; 116(15): 7323–7332. PMID: 30918123
Use Restrictions:	These cells are distributed for research purposes only - refer to the Sales Terms and Conditions.
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