

# ClonaCell™-HY ACF Expansion Medium

**Hybridoma expansion medium with hypoxanthine and thymidine (animal component-free)**

Catalog #03835

500 mL



Scientists Helping Scientists™ | [WWW.STEMCELL.COM](http://WWW.STEMCELL.COM)

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

[INFO@STEMCELL.COM](mailto:INFO@STEMCELL.COM) • [TECHSUPPORT@STEMCELL.COM](mailto:TECHSUPPORT@STEMCELL.COM)

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

## Product Description

ClonaCell™-HY ACF Expansion Medium is an animal component-free (ACF) and serum-free liquid medium optimized for hybridoma expansion after hypoxanthine, aminopterin, thymidine (HAT) selection. The medium contains hypoxanthine and thymidine (HT) and is used to wean hybridomas off aminopterin used during the selection process. ClonaCell™-HY ACF Expansion Medium promotes robust expansion of hybridomas, adaptation from serum-containing to serum-free media, and stabilizing the viability and antibody productivity of hybridoma cell lines. The majority of hybridomas can be switched directly from serum-containing media to ClonaCell™-HY ACF Expansion Medium without an adaptation step. The absence of serum in this medium facilitates detection and purification of the desired hybridoma-derived antibody without interference from serum-derived immunoglobulins.

This medium has been verified for use with mouse and rat hybridomas and is suitable for expansion of mouse myelomas such as Sp2/0, rat myelomas such as YB2/0, and human myelomas such as U266. In most cases, cryopreserved hybridomas can be thawed directly into ClonaCell™-HY ACF Expansion Medium while maintaining a high level of viability. This medium may be used as a serum-free alternative to ClonaCell™-HY Medium A (Catalog #03801) or ClonaCell™-HY Medium E (Catalog #03805).

- Animal component-free
- Absence of serum reduces performance variability in the medium
- Simplifies downstream clone screening and antibody purification (no serum-derived IgG)

## Properties

**Storage:** Store at -20°C.

**Shelf Life:** Stable for 12 months from date of manufacture (MFG) on label.

- Contains:**
- Hypoxanthine and thymidine (HT)
  - Gentamicin
  - Phenol red
  - L-Glutamine and other supplements
  - Other ingredients, including recombinant proteins

## Directions for Use

Thaw ClonaCell™-HY ACF Expansion Medium at room temperature (15 - 25°C) or overnight at 2 - 8°C. Mix thoroughly.

**NOTE:** Do not thaw in a 37°C water bath. If not used immediately, store at 2 - 8°C for up to 2 weeks. Alternatively, aliquot and store at -20°C. Do not exceed the shelf life of the medium.

**NOTE:** Cloudiness may develop in medium over time; this will not affect performance. If desired, the medium can be filtered using a 0.2 µm low protein binding filter.

For complete instructions, refer to the Technical Manual: ClonaCell™-HY: A Complete Workflow for Hybridoma Generation (Document #10000005590), available at [www.stemcell.com](http://www.stemcell.com), or contact us to request a copy.

## References

- Avanzato VA et al. (2019) A structural basis for antibody-mediated neutralization of Nipah virus reveals a site of vulnerability at the fusion glycoprotein apex. *Proc Natl Acad Sci USA* 116(50): 25057–67.
- Baziki J de D et al. (2020) Development and evaluation of an immuno-capture enzyme-linked immunosorbent assay to quantify the *Mycoplasma capricolum* subsp. *capripneumoniae* (Mccp) protein in contagious caprine pleuropneumonia (CCPP) vaccine. *Vet Med Int* 2020: 1–10.
- Chen ZC et al. (2000) Genes coding evolutionary novel anti-carbohydrate antibodies: Studies on anti-Gal production in  $\alpha$ 1,3galactosyltransferase knock out mice. *Mol Immunol* 37(8): 455–66.
- Flyak AI et al. (2015) Mechanism of human antibody-mediated neutralization of Marburg virus. *Cell* 160(5): 893–903.
- Le Gallou S et al. (2018) A splenic IgM memory subset with antibacterial specificities is sustained from persistent mucosal responses. *J Exp Med* 215(8): 2035–53.
- García-Barreno B et al. (2014) Characterization of an enhanced antigenic change in the pandemic 2009 H1N1 influenza virus haemagglutinin. *J Gen Virol* 95(5): 1033–42.
- Goldstein LD et al. (2019) Massively parallel single-cell B-cell receptor sequencing enables rapid discovery of diverse antigen-reactive antibodies. *Commun Biol* 2(1): 304.
- Gonen A et al. (2019) A monoclonal antibody to assess oxidized cholesteryl esters associated with apoAI and apoB-100 lipoproteins in human plasma. *J Lipid Res* 60(2): 436–45.
- Kaabinejadian S et al. (2016) Immunodominant West Nile virus T cell epitopes are fewer in number and fashionably late. *J Immunol* 196(10): 4263–73.
- Lennartz F et al. (2018) Structural basis for recognition of the malaria vaccine candidate Pfs48/45 by a transmission blocking antibody. *Nat Commun* 9(1): 3822.
- Loveless BC et al. (2011) Structural characterization and epitope mapping of the glutamic acid/alanine-rich protein from *Trypanosoma congolense*: Defining assembly on the parasite cell surface. *J Biol Chem* 286(23): 20658–65.
- Okai S et al. (2016) High-affinity monoclonal IgA regulates gut microbiota and prevents colitis in mice. *Nat Microbiol* 1(9): 16103.
- Sapparapu G et al. (2016) Neutralizing human antibodies prevent Zika virus replication and fetal disease in mice. *Nature* 540(7633): 443–7.
- Smith SA et al. (2012) Persistence of circulating memory B cell clones with potential for Dengue virus disease enhancement for decades following infection. *J Virol* 86(5): 2665–75.
- Spanier JA et al. (2016) Efficient generation of monoclonal antibodies against peptide in the context of MHCII using magnetic enrichment. *Nat Commun* 7: 11804.
- Storek KM et al. (2019) Massive antibody discovery used to probe structure–function relationships of the essential outer membrane protein LptD. *eLife* 8: e46258.
- Strohmeier S et al. (2019) Cross-reactive antibodies binding to the influenza virus subtype H11 hemagglutinin. *Pathogens* 8(4): 199.
- Tan GS et al. (2014) Characterization of a broadly neutralizing monoclonal antibody that targets the fusion domain of Group 2 influenza A virus hemagglutinin. *J Virol* 88(23): 13580–92.
- Thakkar D et al. (2020) 10D1F, an anti-HER3 antibody that uniquely blocks the receptor heterodimerization interface, potently inhibits tumor growth across a broad panel of tumor models. *Mol Cancer Ther* 19(2): 490–501.
- Wittman VP et al. (2006) Antibody targeting to a class I MHC-peptide epitope promotes tumor cell death. *J Immunol* 177(6): 4187–95.
- Yew CW & Tan YJ. (2016) Generation of mouse monoclonal antibodies specific to chikungunya virus using ClonaCell-HY Hybridoma Cloning Kit. *Methods Mol Biol* 1426: 225–33.
- Yokoyama WM et al. (2013) Production of monoclonal antibodies. *Current Protocols in Immunology* 102(II:2.5): 2.5.1–29.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED. FOR ADDITIONAL INFORMATION ON QUALITY AT STEMCELL, REFER TO [WWW.STEMCELL.COM/COMPLIANCE](http://WWW.STEMCELL.COM/COMPLIANCE).

Copyright © 2026 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, and ClonaCell are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.