

PRODUCT DESCRIPTION

AggreWell™400Ex plates (Catalog #27840/27940) have microwells 400 µm in diameter that can be used to aggregate human pluripotent stem cells (hPSCs) into embryoid bodies (EBs). EB formation is accomplished by adding a single cell suspension and then culturing for 24 hours. The resulting EBs are highly uniform in size. EBs generated using AggreWell™ plates are consistent in size and shape, and uniform within and between experiments.

STABILITY AND STORAGE

This product has been aseptically manufactured using tightly controlled processes and sterilized by gamma irradiation. Please contact a STEMCELL Technologies representative if inner packaging is not intact.

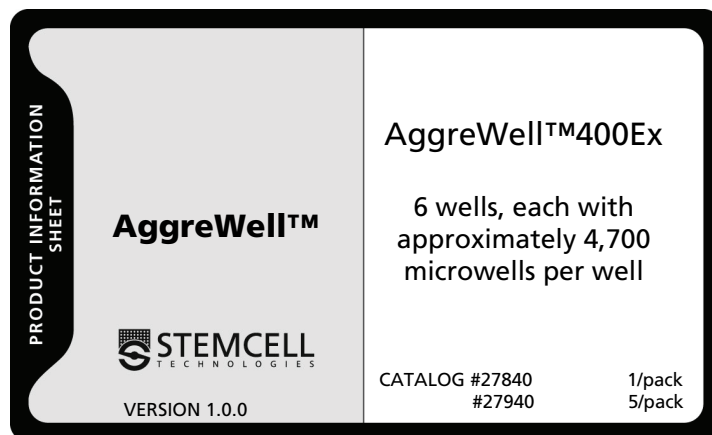
Store at room temperature (15 - 25°C) away from direct light and heat. Product stable at 15 - 25°C for at least 5 years from date of receipt.

DIRECTIONS FOR USE

For complete instructions on how to generate EBs from hPSCs using AggreWell™400Ex plates, see the Technical Manual "Reproducible and Uniform Embryoid Bodies Using AggreWell™ Plates" (Manual Catalog #29146) available on our website at www.stemcell.com.

Each well of the AggreWell™400Ex plate contains approximately 4,700 microwells. There may be very small differences in the actual number of microwells present; however, this is unlikely to have a significant impact on EB yield from the plate.

When generating EBs, it is essential to have a high quality starting population of undifferentiated hPSCs.



ADDITIONAL REQUIRED MATERIALS

PRODUCT	CATALOG #
PBS	37350
DMEM/F-12	36254
ACCUTASE™	07920
Y-27632 ROCK Inhibitor	07171 07172
Trypan Blue	07050
6-well ultra low adherence plate	27145
37 µm Reversible Strainer, small	27215
37 µm Reversible Strainer, large	27250
EB formation medium	Various ^a
EB suspension culture medium	Various ^b
Conical tubes (50 mL)	e.g. BD Biosciences, Catalog #352070
Conical tubes (15 mL)	e.g. BD Biosciences, Catalog #352196

ACCUTASE™ is a trademark of Innovative Cell Technologies, Inc. San Diego, CA

Notes:

a, b: Please refer to the Technical Manual "Reproducible and Uniform Embryoid Bodies Using AggreWell™ Plates" (Manual Catalog #29146) available on our website at www.stemcell.com

RELATED PRODUCTS

PRODUCT	CATALOG #
mTeSR [®] 1 Complete Kit for hES Maintenance Medium	05850/05870/05875/05857
TeSR [™] 2 Complete Kit for hES Maintenance Medium	05860/05880
mFreSR [™] Defined Cryopreservation Medium	05854 05855
AggreWell [™] Medium	05893
AggreWell [™] 400	27845/27945
AggreWell [™] 800	27865/27965
BD Matrigel [™] hESC-qualified Matrix	BD Biosciences, Catalog #354277
Collagenase IV (1 mg/mL)	07909
CryoStor [™] CS10	07930
Dispase (1 mg/mL)	07923
Gelatin	07903
MEM Non-Essential Amino Acids, 10 mM (100X Concentrate)	07600
L-glutamine	07100
Trypsin-EDTA (0.05%)	07910
Trypsin-EDTA (0.25%)	07901
Anti-Oct 3/4 antibody	01550/01551
Anti-SSEA-1 antibody	01552
Anti-SSEA-3 antibody	01553
Anti-SSEA-4 antibody	01554
Anti-TRA-1-60 antibody	01555
Anti-TRA-1-81 antibody	01556

REFERENCES

1. Bauwens CL, Peerani R, Niebruegge S, Woodhouse KA, Kumacheva E, Husain M, Zandstra PW: Control of Human Embryonic Stem Cell Colony and Aggregate Size Heterogeneity Influences Differentiation Trajectories. *Stem Cells Express* doi: 10.1634/stemcells.2008-0183
2. Ungrin MD, Joshi C, Nica A, Bauwens C, Zandstra PW: Reproducible, Ultra-High-Throughput Formation of Multicellular Organization from Single Cell Suspension-Derived Human Embryonic Stem Cell Aggregates. *PLoS One* 3(2):e1565, 2008
3. Watanabe K, Ueno M, Kamiya D, Nishiyama A, Matsumura M, Wataya T, Takahashi JB, Nishikawa S, Nishikawa S, Muguruma K, Sasai Y: A ROCK inhibitor permits survival of dissociated human embryonic stem cells. *Nat Biotechnol.* 2007 Jun; 25(6):681-686