

Materials List for:

Organoids as Model for Infectious Diseases: Culture of Human and Murine Stomach Organoids and Microinjection of Helicobacter Pylori

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Materials

| Name | Company | Catalog Number | Comments |
|-------------------------------|---------------|----------------|--|
| Medium | | | |
| HEPES | Invitrogen | 15630-056 | |
| Advanced DMEM/F12 | Invitrogen | 12634-028 | |
| Matrigel, GFR, phenol free | BD | 356231 | |
| GlutaMAX | Invitrogen | 35050-079 | Stock concentration 200 mM, final concentration 2 mM |
| B27 | Invitrogen | 17504-044 | Stock concentration 50 x, final concentration 1x |
| N-Acetylcysteine | Sigma-Aldrich | A9165-5G | Stock concentration 500 mM, final concentration 1 mM |
| Murine recombinant EGF | Invitrogen | PMG8043 | Stock concentration 500 µg/ml, final concentration 50 ng/ml |
| Human recombinant FGF10 | Peptotech | 100-26 | Stock concentration 100 µg/ml, final concentration 200 ng/ml |
| TGFβi A-83-01 | Tocris | 2939 | Stock concentration 500 µM, final concentration 2 µM |
| Nicotinamide | Sigma-Aldrich | N0636 | Stock concentration 1 M, final concentration 10 mM |
| [Leu15]-Gastrin | Sigma-Aldrich | G9145 | Stock concentration 100 µM, final concentration 1 nM |
| RHOKi Y-27632 | Sigma-Aldrich | Y0503 | Stock concentration 10 mM, final concentration 10 µM |
| Wnt3A conditioned medium | | | Stable cell line generated in the Clevers Lab. Final concentration 50%. Cells can be obtained from Hans Clevers. |
| R-spondin1 conditioned medium | | | Stable cell line generated in the Kuo Lab. Final concentration 10%. Cell line can be obtained from Calvin Kuo, Stanford. |
| Noggin conditioned medium | | | Stable cell line generated in the Clevers Lab. Final concentration 10%. Cells can be obtained from Hans Clevers. |
| R-spondin3 | R&D | 3500-RS/CF | Alternative source for R-spondin. This has been tested on human intestine organoids (1 µg/ml), but not yet on gastric organoids. |
| Noggin | Peptotech | 120-10 | Alternative source for noggin. This has been tested on human intestine organoids (100 ng/ml), but not yet on gastric organoids. |

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| TrypLE express | Life Technologies | 12605036 | Enzymatic dissociation solution |
| CoolCell® Alcohol-free Cell Freezing Containers | biocision | BCS-405 | |
| Recovery Cell Culture Freezing Medium | Invitrogen | 12648-010 | |
| Antibiotics | | | |
| Primocin | Invivogen | ant-pm-1 | An antibiotics composition agains bacteria and fungi. It is helpful after initiation of a culture. For long term culture you can switch to other antibiotics or none. |
| Penicillin/Streptomycin | Invitrogen | 15140-122 | Stock concentration 10,000/10,000 U/ml, final concentration 100/100 U/ml. Can be used alternatively to Primocin in long term culture. |
| Other | | | |
| Tweezers | Neolabs | 2-1033 | Tweezers with fine tips are helpful for the removal of muscle layer from the tissue. |
| 4 Well Multidishes | Thermo Scientific | 144444 | You can use other Multidishes. These were particularly helpful for microinjections because they have a low outer rim and allow more mobility for the manipulator. |
| Micromanipulator | Narishige | M-152 | |
| Microinjector | Narishige | IM-5B | |
| Stereomicroscope | Leica | MZ75 | |
| Workbench | Clean Air | | Custom made to fit the stereomicroscope in ML2 condition |
| Capillaries | Harvard Apparatus | GC100T-10 | 1 mm outer diameter, 0.78 mm inner diameter. |
| Micropipette Puller | Sutter Instruments | Flaming Brown Micropipette Puller | |
| anti Cag A antibody | Santa Cruz | sc-25766 | |