

Optimization of *Aspergillus versicolor* culture and aerosolization in a murine model of inhalational fungal exposure_dataset

Data Dictionary

Field Name	Field Contents
Test article	The fungal species or air only control to which the animal group is exposed
Viable	<i>Aspergillus versicolor</i> conidia that are collected and used directly from the cultured test article.
HIC	Heat inactivated conidia; Conidia of <i>A. versicolor</i> that have been heat inactivated by baking
Colony	Visible mass of fungal cells on solid media, each colony arises from a single original cell in suspension.
Colony count	
Mouse ID	Identification number given to an experimental mouse
Nasal Passage	The number of conidia counted in the nasal passage portion of the airway.
Lung	The number of conidia counted in lung
Conidia	Spore produced by fungi at the end of the hyphae
Desiccation	Drying the test article using a sealed desiccation chamber and dry desiccant.
AOC	Air only control; the negative control group used in murine inhalation studies, mice breathed HEPA filtered air with no fungal article.
<i>A. versicolor, Av</i>	<i>Aspergillus versicolor (Vuillemin) Tiraboschi, ATCC 9577</i>
AGS	Acoustical generating system; the system used to aerosolize the conidia off of the rice, which are then mixed with HEPA filtered air and inhaled by mice.
Pod	The housing chamber into which mice are placed for the nose-only exposures.
MEA	Malt extract agar
SDS PAGE	Sodium dodecyl sulfate–polyacrylamide gel electrophoresis
PBS	Phosphate buffered saline
LAL	<i>Limulus</i> amoebocyte lysate; the chromogenic assay used to quantify endotoxin
EU	Endotoxin unit
HEPA	High efficiency particulate air filter
LLNA	Local lymph node assay
SI	Stimulation index
DPM	Disintegrations per minute
BAL	Broncho-alveolar lavage
H&E	hematoxylin and eosin
GMS	Grocott's methenamine silver stain
ELISA	Enzyme-linked immunosorbent assay
IgG	Immunoglobulin G; quantified as total ug/mL of serum
IgA	Immunoglobulin A; quantified as total ug/mL of serum

IgM	Immunoglobulin M; quantified as total ug/mL of serum
IgE	Immunoglobulin E; quantified as total ug/mL of serum
DMEM	Dulbecco's Modified Eagles Medium
CD16/32	Purified anti-mouse CD16/322 antibody, blocks non-specific binding on immune cells by staining antibodies
BAL_Lymphocytes	Cell population including T and B cells, gated in flow cytometry on forward and side scatter, in BAL samples. Quantified as percent of single cells.
BAL_Alveolar Macrophages	Phagocytic innate immune cells, in BAL samples. Quantified as percent of single cells.
BAL_Neutrophils	Granulocytes involved in anti-fungal responses, in BAL samples. Quantified as percent of single cells.
BAL_Eosinophils	Granulocytes involved in allergic responses, in BAL samples. Quantified as percent of single cells.
Lung_Lymphocytes	Cell population including T and B cells, gated in flow cytometry on forward and side scatter, in lung tissue samples. Quantified as percent of single cells.
Lung_Alveolar Macrophages	Phagocytic innate immune cells, in lung tissue samples. Quantified as percent of single cells.
Lung_Neutrophils	Granulocytes involved in anti-fungal responses, in lung tissue samples. Quantified as percent of single cells.
Lung_Eosinophils	Granulocytes involved in allergic responses, in lung tissue samples. Quantified as percent of single cells.
Sterigmatocystin	Mycotoxin produced by <i>Aspergillus versicolor</i>
Aspercolorin	A secondary metabolite produced by <i>Aspergillus versicolor</i> ; quantified as total nanograms in sample vial.
Averantin	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor to aflatoxin b1; quantified as total nanograms in sample vial.
Averufin	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor to aflatoxin b1; quantified as total nanograms in sample vial.
Nidurufin	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a cell cycle inhibitor; quantified as total nanograms in sample vial.
Norsolorinic acid	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor to sterigmatocystin and aflatoxin; quantified as total nanograms in sample vial.
seco-Sterigmatocystin	A secondary metabolite produced by <i>Aspergillus versicolor</i> ; quantified as total nanograms in sample vial.
Versicolorin A	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor in aflatoxin biosynthesis; quantified as total nanograms in sample vial.
Versicolorin C	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor in aflatoxin biosynthesis; quantified as total nanograms in sample vial.
Versiconal Acetate	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor in aflatoxin biosynthesis; quantified as total nanograms in sample vial.

Versiconol	A secondary metabolite produced by <i>Aspergillus versicolor</i> , a precursor in aflatoxin biosynthesis; quantified as total nanograms in sample vial.
Secondary metabolite Sample	The culture sample from which secondary metabolites are quantified. Live or heat inactivated conidia of <i>Aspergillus versicolor</i> .
Exposure Number	The iteration of the exposure during the exposure set
1x10 ⁴ Target Dose Group	Exposure group intended to receive 1x10 ⁴ dose of <i>A. versicolor</i> ; data represents the actual dose of <i>A. versicolor</i>
3x10 ⁴ Target Dose Group	Exposure group intended to receive 3x10 ⁴ dose of <i>A. versicolor</i> ; data represents the actual dose of <i>A. versicolor</i>
1x10 ⁵ Target Dose Group	Exposure group intended to receive 1x10 ⁵ dose of <i>A. versicolor</i> ; data represents the actual dose of <i>A. versicolor</i>
3x10 ⁵ Target Dose Group	Exposure group intended to receive 3x10 ⁵ dose of <i>A. versicolor</i> ; data represents the actual dose of <i>A. versicolor</i>
Week 0 weight	Weight of the mouse before exposures began
Week 1 weight	Weight of the mouse during week 1 of exposures
Week 2 weight	Weight of the mouse during week 2 of exposures
Week 3 weight	Weight of the mouse during week 3 of exposures
Week 4 weight	Weight of the mouse during week 4 of exposures
AGS sample	Sample collected from the acoustical generating system: rice control, viable <i>A. versicolor</i> , and HIC <i>A. versicolor</i>
Sterigmatocystin (ng/filter)	Mycotoxin quantified from a filter collected from the AGS, denoted as total nanograms per filter.