

Table 3. Immunomodulatory Polysaccharide-Rich Plant Powders: Oral Animal Studies

Source	Animal	Oral dose/day	Duration	Treatment	Significant effects	Reference
<i>Agaricus (A. blazei) subrufescens</i> (fruit bodies)	6-week ♂ C57BL/6, C3H/HeJ and BALB/c mice (3/group)	16, 32 or 64 mg	2 weeks	Healthy animals	32 and 64 mg ↑ liver mononuclear cell cytotoxicity	[25]
<i>Grifola frondosa</i>	6-week ♀ ICR mice (10-15/group)	5% of diet	36 weeks	Oral N-butyl-N'-butanolnitrosamine daily for first 8 weeks	↓ #s of animals with bladder tumors; ↓ tumor weight; ↑ peritoneal Mφ chemotactic activity, splenic lymphocyte blastogenic response & cytotoxic activity	[70]
<i>Laminaria angustata</i>	Weanling SD rats (58/group)	5% of diet	26 weeks	IG DMBA, beginning of week 5	↑ time to tumor development and ↓ # of adenocarcinomas in adenocarcinoma-bearing animals	[77]
<i>Lentinula (Lentinus) edodes</i>	6-week ♀ ICR mice (10-17/group)	5% of diet	36 weeks	Oral BBN daily for first 8 weeks	↓ # of animals with bladder tumors; ↓ tumor weight; ↑ Mφ chemotactic activity, splenic lymphocyte blastogenic response, cytotoxic activity	[70]
	7-8-week ♂ Swiss mice (10/group)	1%, 5% or 10% of diet of 4 different lineages days 1-15	16 days	Injected IP N-ethyl-N-nitrosourea day 15	All 3 doses of one lineage and the 5% dose of two other lineages ↓ #s of micronucleated bone marrow polychromatic erythrocytes	[79]
<i>Lentinula edodes</i> (fruit bodies)	5-week ♀ ICR mice (14/group x 2)	10%, 20% or 30% of diet	25 days	Injected IP Sarcoma-180 ascites	All 3 doses ↓ Sarcoma-180 tumor weight	[78]
	Mice: 1) CDF ₁ ; 2) C3H; 3) BALB/c; 4,5) C57BL/6N (9/group x 3)	20% of diet	25 days	Injected SC: 1) IMC carcinoma, 2) MM-46 carcinoma, 3) Meth-A fibrosarcoma, 4) B-16 melanoma, or 5) Lewis lung carcinoma cells	↓ growth of MM-46, B-16, Lewis lung, and IMC tumors; ↑ lifespan in Lewis lung and MM-46 animals	
	ICR mice (14/group x 2)	20% of diet days 1-7, days 7-31 or days 14-31	31 days	Injected IP Sarcoma-180 ascites	↓ tumor weight & growth when fed days 7-31 or 14-31	
	Mice: 1) CDF ₁ ; 2) C3H (5/group x 4)	20% of diet	7-12 days	Injected SC: 1) IMC carcinoma or 2) MM-46 carcinoma cells	↑ spreading rate of activated Mφ ↑ phagocytic activity	
<i>Phellinus linteus</i>	4-week ♂ ICR mice (10/group)	2 mg	1 month	Healthy animals	↓ serum & splenocyte IgE production; ↑ proportion of splenic CD4 ⁺ T cells & splenocyte IFN-γ production	[31]

<i>Pleurotus ostreatus</i>	6-week ♀ ICR mice (10-20/group)	5% of diet	36 weeks	Oral BBN daily for first 8 weeks	↓ #s of animals with bladder tumors; ↓ tumor weight; ↑ plasma Mφ chemotactic activity, splenic lymphocyte blastogenic response, cytotoxic activity	[70]
----------------------------	------------------------------------	------------	----------	-------------------------------------	---	------
