

Resource Summary Report

Generated by [NIF](#) on Aug 25, 2026

NOD.Cg-*Ifng*^{tm1Ts} *H2*^{h4}/HbmMmmh

RRID:MMRRC_037140-MU

Type: Organism

Proper Citation

RRID:MMRRC_037140-MU

Organism Information

URL: https://www.mmrrc.org/catalog/sds.php?mmrrc_id=37140

Proper Citation: RRID:MMRRC_037140-MU

Description: Mus musculus with name NOD.Cg-*Ifng*^{tm1Ts} *H2*^{h4}/HbmMmmh from MMRRC.

Species: Mus musculus

Notes: Research areas: Immunology and Inflammation; Mutation Type: Targeted Mutation ; Collection: Mullen

Phenotype: increased leukocyte cell number [MP:0000218]| increased monocyte cell number [MP:0000220]| extramedullary hematopoiesis [MP:0000240]| increased granulocyte number [MP:0000322]| abnormal spleen morphology [MP:0000689]| enlarged spleen [MP:0000691]| abnormal lymph node size [MP:0000701]| enlarged lymph nodes [MP:0000702]| increased body weight [MP:0001260]| decreased body weight [MP:0001262]| increased metastatic potential [MP:0001272]| abnormal response to new environment [MP:0001413]| altered susceptibility to infection [MP:0001793]| abnormal humoral immune response [MP:0001800]| decreased IgG level [MP:0001805]| decreased IgM level [MP:0001806]| decreased IgA level [MP:0001807]| abnormal inflammatory response [MP:0001845]| increased inflammatory response [MP:0001846]| brain inflammation [MP:0001847]| kidney inflammation [MP:0001859]| liver inflammation [MP:0001860]| lung inflammation [MP:0001861]| stomach inflammation [MP:0001873]| decreased inflammatory response [MP:0001876]| abnormal lactation [MP:0001882]| mammary gland alveolar hyperplasia [MP:0001884]| decreased litter size [MP:0001935]| abnormal lung volume [MP:0001942]| increased airway responsiveness [MP:0001952]| emphysema [MP:0001958]| increased B cell derived lymphoma incidence [MP:0002023]| increased T cell derived lymphoma incidence [MP:0002024]| increased lung adenocarcinoma incidence [MP:0002027]| increased sarcoma incidence [MP:0002032]| increased carcinoma incidence [MP:0002038]| increased pituitary adenoma incidence [MP:0002041]| decreased tumor incidence [MP:0002052]| premature death [MP:0002083]

abnormal spleen size [MP:0002224]| abnormal pulmonary alveolus morphology [MP:0002270]| decreased airway responsiveness [MP:0002335]| abnormal lymph node cortex morphology [MP:0002343]| abnormal lymph node primary follicle morphology [MP:0002345]| abnormal lymph node secondary follicle morphology [MP:0002346]| abnormal spleen red pulp morphology [MP:0002356]| abnormal spleen white pulp morphology [MP:0002357]| abnormal dendritic cell physiology [MP:0002376]| increased susceptibility to bacterial infection [MP:0002412]| increased susceptibility to viral infection [MP:0002418]| abnormal adaptive immunity [MP:0002420]| altered susceptibility to autoimmune disorder [MP:0002425]| abnormal macrophage physiology [MP:0002451]| abnormal dendritic cell antigen presentation [MP:0002455]| abnormal B cell physiology [MP:0002459]| decreased immunoglobulin level [MP:0002460]| increased immunoglobulin level [MP:0002461]| abnormal immunoglobulin level [MP:0002490]| decreased IgE level [MP:0002492]| increased IgE level [MP:0002497]| abnormal type IV hypersensitivity reaction [MP:0002534]| glomerulonephritis [MP:0002743]| decreased vertical activity [MP:0002757]| albuminuria [MP:0002871]| increased circulating alanine transaminase level [MP:0002941]| abnormal cytokine secretion [MP:0003009]| abnormal redox activity [MP:0003186]| small intestinal inflammation [MP:0003306]| abnormal tumor morphology [MP:0003448]| increased fear-related response [MP:0003459]| abnormal pancreatic beta cell physiology [MP:0003562]| increased ovarian carcinoma incidence [MP:0003579]| increased autoantibody level [MP:0003725]| decreased autoantibody level [MP:0003726]| abnormal nitric oxide homeostasis [MP:0003957]| abnormal lung vasculature morphology [MP:0004007]| abnormal maternal decidual layer morphology [MP:0004256]| decreased length of allograft survival [MP:0004752]| decreased anti-nuclear antigen antibody level [MP:0004795]| decreased anti-double stranded DNA antibody level [MP:0004798]| increased susceptibility to experimental autoimmune encephalomyelitis [MP:0004799]| decreased susceptibility to systemic lupus erythematosus [MP:0004802]| decreased susceptibility to autoimmune diabetes [MP:0004804]| abnormal immune tolerance [MP:0005000]| increased eosinophil cell number [MP:0005011]| increased lymphocyte cell number [MP:0005013]| increased T cell number [MP:0005015]| abnormal response to infection [MP:0005025]| decreased susceptibility to parasitic infection [MP:0005026]| increased susceptibility to parasitic infection [MP:0005027]| abnormal MHC II cell surface expression on macrophages [MP:0005040]| impaired natural killer cell mediated cytotoxicity [MP:0005070]| abnormal cytotoxic T cell physiology [MP:0005078]| decreased double-negative T cell number [MP:0005089]| cachexia [MP:0005150]| abnormal response to injury [MP:0005164]| decreased susceptibility to injury [MP:0005166]| abnormal renal glomerulus morphology [MP:0005325]| atherosclerotic lesions [MP:0005338]| decreased susceptibility to autoimmune disorder [MP:0005351]| abnormal Langerhans cell physiology [MP:0005362]| increased susceptibility to fungal infection [MP:0005399]| abnormal skin physiology [MP:0005501]| corneal vascularization [MP:0005542]| decreased circulating creatinine level [MP:0005554]| increased blood urea nitrogen level [MP:0005565]| decreased susceptibility to type IV hypersensitivity reaction [MP:0005616]| increased susceptibility to type IV hypersensitivity reaction [MP:0005617]| abnormal response to transplant [MP:0005671]| abnormal mammary gland growth during pregnancy [MP:0006269]| increased NK T cell number [MP:0008039]| abnormal uterine NK cell morphology [MP:0008054]| increased CD4-positive [MP:0008074]| alpha beta T cell number [MP:0008078]| increased CD8-positive [MP:0008135]| alpha-beta T cell number [MP:0008466]| small Peyer's patches [MP:0008474]| enlarged mesenteric lymph nodes [MP:0008496]| absent spleen germinal center [MP:0008497]| decreased IgG2a level [MP:0008498]| decreased IgG2b level [MP:0008499]| decreased IgG3 level [MP:0008523]| increased IgG1 level [MP:0008567]| absent lymph node germinal center [MP:0008596]|

decreased interferon-gamma secretion [MP:0008660]| increased circulating interleukin-6 level [MP:0008661]| increased interleukin-10 secretion [MP:0008663]| decreased interleukin-10 secretion [MP:0008681]| increased interleukin-12 secretion [MP:0008687]| increased interleukin-17 secretion [MP:0008699]| increased interleukin-2 secretion [MP:0008702]| increased interleukin-4 secretion [MP:0008713]| increased interleukin-5 secretion [MP:0008770]| abnormal cytokine level [MP:0008828]| decreased survivor rate [MP:0008874]| abnormal lymph node cell ratio [MP:0009099]| decreased physiological sensitivity to xenobiotic [MP:0009246]| abnormal uterine NK cell physiology [MP:0009336]| pale spleen [MP:0009394]| increased splenocyte proliferation [MP:0009419]| increased uterine NK cell number [MP:0009643]| skeletal muscle fibrosis [MP:0009763]| abnormal urine homeostasis [MP:0009766]| increased sensitivity to induced morbidity/mortality [MP:0009788]| increased sensitivity to xenobiotic induced morbidity/mortality [MP:0009791]| increased susceptibility to bacterial infection induced morbidity/mortality [MP:0009828]| increased susceptibility to viral infection induced morbidity/mortality [MP:0010210]| increased tumor latency [MP:0010308]| abnormal circulating cytokine level [MP:0010574]| decreased tumor latency [MP:0010639]| aorta dilation [MP:0010659]| altered tumor pathology [MP:0010740]| abdominal aorta aneurysm [MP:0010750]| abnormal dendritic cell chemotaxis [MP:0010751]| increased susceptibility to parasitic infection induced morbidity/mortality [MP:0010760]| decreased susceptibility to parasitic infection induced morbidity/mortality [MP:0010766]| abnormal macrophage chemotaxis [MP:0011086]| abnormal NK cell physiology [MP:0011320]| postnatal lethality [MP:0011427]| incomplete penetrance [MP:0012431]| abnormal glomerular capillary morphology [MP:0013239]| mesangial cell hyperplasia [MP:0013590]| increased lymphoma incidence [MP:0030466]| abnormal cytokine secretion [MP:0003009]| thyroid inflammation [MP:0003504]| insulinitis [MP:0004031]| decreased susceptibility to autoimmune diabetes [MP:0004804]| periinsulinitis [MP:0005580]| decreased physiological sensitivity to xenobiotic [MP:0008874]

Affected Gene: *Ifng*

Catalog Number: 037140-MU

Background: Targeted Mutation

Database: Mutant Mouse Resource and Research Center (MMRRC)

Database Abbreviation: MMRRC

Source References: [PMID:16394017](#), [PMID:21220693](#), [PMID:22119715](#), [PMID:23509363](#), [PMID:25400914](#), [PMID:12244202](#)

Alternate IDs: MMRRC_37140-MU, MMRRC_037140, MMRRC_3714

Organism Name: NOD.Cg-*Ifng*^{tm1Ts} H2^{h4}/HbmMmmh

Record Creation Time: 20230308T055150+0000

Record Last Update: 20260815T124839+0000

Ratings and Alerts

No rating or validation information has been found for NOD.Cg-*Ifng*^{tm1Ts} H2^{h4}/HbmMmmh.

Warning: Warning. Researchers have noted that this genotype does not sufficiently model human systemic lupus erythematosus.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: Mutant Mouse Resource and Research Center (MMRRC)

Usage and Citation Metrics

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Voynova E, et al. (2018) Requirement for CD40/CD40L Interactions for Development of Autoimmunity Differs Depending on Specific Checkpoint and Costimulatory Pathways. *ImmunoHorizons*, 2(1), 54.

Kayes TD, et al. (2016) New Murine Model of Early Onset Autoimmune Thyroid Disease/Hypothyroidism and Autoimmune Exocrinopathy of the Salivary Gland. *Journal of immunology* (Baltimore, Md. : 1950), 197(6), 2119.