

Resource Summary Report

Generated by [NIF](#) on Aug 30, 2026

NOD.Cg-*Ifng*^{tm1Ts} *Ighm*^{tm1Cgn} *H2h4*/HbmMmmh

RRID:MMRRC_037144-MU

Type: Organism

Proper Citation

RRID:MMRRC_037144-MU

Organism Information

URL: https://www.mmrrc.org/catalog/sds.php?mmrrc_id=37144

Proper Citation: RRID:MMRRC_037144-MU

Description: Mus musculus with name NOD.Cg-*Ifng*^{tm1Ts} *Ighm*^{tm1Cgn} *H2h4*/HbmMmmh from MMRRC.

Species: Mus musculus

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

Phenotype: 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] decreased bone mineral density [MP:0000063] abnormal trabecular bone morphology [MP:0000130] decreased compact bone thickness [MP:0000135] enlarged heart [MP:0000274] increased cell proliferation [MP:0000351] abnormal intestinal epithelium morphology [MP:0000488] abnormal spleen morphology [MP:0000689] enlarged lymph nodes [MP:0000702] abnormal skin condition [MP:0001191] abnormal cardiovascular system physiology [MP:0001544] abnormal humoral immune response [MP:0001800] arrested B cell differentiation [MP:0001802] decreased IgG level [MP:0001805] decreased IgM level [MP:0001806] decreased IgA level [MP:0001807] thymus hypoplasia [MP:0001823] abnormal antigen presentation [MP:0001835] abnormal inflammatory response [MP:0001845] increased inflammatory response [MP:0001846] heart inflammation [MP:0001853] myocarditis [MP:0001856] kidney inflammation [MP:0001859] abnormal lymphatic vessel morphology [MP:0001879] premature death [MP:0002083] abnormal respiratory system physiology [MP:0002133] abnormal B cell differentiation [MP:0002144] abnormal spleen marginal sinus morphology [MP:0002363] abnormal B lymphocyte antigen presentation [MP:0002453] decreased immunoglobulin level [MP:0002460] abnormal immunoglobulin level [MP:0002490] decreased IgE level [MP:0002492] tubular nephritis [MP:0002704] increased urine protein level

[MP:0002962] abnormal cytokine secretion [MP:0003009] cardiac fibrosis [MP:0003141] thrombocytopenia [MP:0003179] small intestinal inflammation [MP:0003306] increased susceptibility to induced arthritis [MP:0003724] increased autoantibody level [MP:0003725] abnormal compact bone morphology [MP:0003797] abnormal PR interval [MP:0003901] insulinitis [MP:0004031] decreased susceptibility to systemic lupus erythematosus [MP:0004802] increased susceptibility to autoimmune diabetes [MP:0004803] decreased susceptibility to autoimmune diabetes [MP:0004804] decreased spleen weight [MP:0004953] increased osteoclast cell number [MP:0004984] increased T cell number [MP:0005015] decreased B cell number [MP:0005017] abnormal response to infection [MP:0005025] increased susceptibility to parasitic infection [MP:0005027] abnormal T cell proliferation [MP:0005094] decreased T cell proliferation [MP:0005095] cachexia [MP:0005150] decreased susceptibility to injury [MP:0005166] abnormal pancreatic islet morphology [MP:0005215] abnormal CD4-positive [MP:0005463] alpha-beta T cell physiology [MP:0005559] increased circulating glucose level [MP:0005616] decreased susceptibility to type IV hypersensitivity reaction [MP:0006387] abnormal T cell number [MP:0008071] absent B cells [MP:0008075] decreased CD4-positive [MP:0008079] alpha beta T cell number [MP:0008127] decreased CD8-positive [MP:0008171] alpha-beta T cell number [MP:0008201] decreased dendritic cell number [MP:0008211] abnormal mature B cell morphology [MP:0008212] absent follicular dendritic cells [MP:0008213] decreased mature B cell number [MP:0008240] absent mature B cells [MP:0008241] absent immature B cells [MP:0008401] abnormal spleen marginal zone macrophage morphology [MP:0008470] abnormal metallophilic macrophage morphology [MP:0008495] abnormal CD8 positive [MP:0009346] alpha-beta intraepithelial T cell morphology [MP:0010965] abnormal spleen B cell follicle morphology [MP:0012431] 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]

Affected Gene: *Ighm*||*Ifng*||

Catalog Number: 037144-MU

Background: Targeted Mutation

Database: Mutant Mouse Resource and Research Center (MMRRC)

Database Abbreviation: MMRRC

Source References: [PMID:23509363](https://pubmed.ncbi.nlm.nih.gov/23509363/)

Alternate IDs: MMRRC_37144-MU, MMRRC_037144, MMRRC_37144

Organism Name: NOD.Cg-*Ifng*^{tm1Ts} *Ighm*^{tm1Cgn} *H2h4*/HbmMmmh

Record Creation Time: 20230308T055150+0000

Record Last Update: 20260829T123634+0000

Ratings and Alerts

No rating or validation information has been found for NOD.Cg-*Ifng*^{tm1Ts} *Ighm*^{tm1Cgn} *H2h4*/HbmMmmh.

Warning: Warning. Researchers have noted that this genotype does not sufficiently model human rheumatoid arthritis.

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

Warning: Warning. Researchers have noted that this genotype does not sufficiently model human type 1 diabetes mellitus.

Data and Source Information

Source: [Integrated Animals](#)

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

Usage and Citation Metrics

We have not found any literature mentions for this resource.