inotiv
analyze. answer. advance.

Athymic Nude Mouse

The nu mutation was discovered in 1962 in a closed outbred stock of albino mice in the Virus Laboratory, Ruchill Hospital, Glasgow, Scotland. Harlan obtained the model from the National Cancer Institute, National Institutes of Health, Maryland. This athymic nude model is maintained as an outbred colony, produced within flexible-film isolators and monitored for microbiologic integrity. Athymic nude mice are suitable for use in oncology, immunolgy*, and other fields of biomedical research. Harlan was renamed Envigo in 2015. Envigo was acquired by Inotiv in 2021.

Athymic Nude Mouse - Hsd:Athymic Nude-*Foxn1*^{nu}

CHARACTERISTICS

- Autosomal recessive mutation on nu locus on chromosome 11
- Thymic aplasia
- Phenotypically hairless (sparse hair growth possible)
- T-cell deficient
- Normal B-cell function
- Accepts xenograft and allograft transplantation
- Insusceptible to graft-versus-host disease
- No generation of cytotoxic effector cells

RESEARCH USE

GENERAL

- Tumor imaging (1,13,15,21,29,32,35,70,)
- Spontaneous tumors (17)
- Xenograft transplantation (5,11,13, 15,24,41,45,47,51,55,58,70,73)
- Tumor angiogenesis (4,14,33,37,54,59)
- Cancer cell tumorigenesis (2,6,18,2 0,31,43,44,46,56,66,67,68,69)
- Tumor inhibition (22, 25, 30, 53)
- Carcinogenesis regulation (5,10,23,40)
- Radiotherapy (34)

OVARIAN CANCER

- Vitamin D analogue (71)
- (NIS)-mediated radioiodide
- Tumor imaging (15)
- Antigen-specific mAb-based
- Immunotherapy (16)
- Adenovirus-mediated introduction of tumor suppressor genes (36, 42)
- IL-2 plasmid therapy of murine ovarian
- Carcinoma (27)

COLON CANCER

- Meloxicam (COX-2 Inhibitor) treatment (19)
- Gene targeting in colorectal cancer cells (45, 52)
- Epidermal growth factor receptor (egfr)
- Expression inhibition (48)
- *In vivo* microscopy tumor imaging (32)

SKIN CANCER

- Vitamin e succinate treatment (38)
- Antitumor activity of tnf-α in human melanoma xenografts (41)
- Dynamic fluorescence optical
- Tumor imaging (21)

PANCREATIC CANCER

- Identification of MnSOD tumor suppressor gene (54)

BREAST CANCER

- Bioluminescent tumor imaging (13, 29)
- Therapeutic electromagnetic field and gamma irradiation (7)
- Reversal of tamoxifen resistance of human breast carcinomas (3)
- α-difluoromethylornithine (DFMO)
- Treatment to attenuate metastasis (50)
- Inhibitory effects of arzoxifene on breast cancer carcinomas (65)
- Proapoptotic gene bik therapy (75)
- Reduced tumorigenicity of MDA-MB-231 cells by TGF-β RIII (57)

LUNG CANCER

- Bioluminescent tumor imaging (13)
- Aromatase inhibitors (63)
- Methadone treatment (64)
- Gene therapy utilizing plasmid DNA (26)
- Liposome-p53 administration in early endobronchial cancer (74)

PROSTATE CANCER

- PET tumor imaging (70)
- Peptide-doxorubicin prodrug treatment (11)
- Genistein therapy combined with irradiation (25)
- Identification of MnSOD tumor
- Suppressor gene (61)
- Thapsigargin prodrug treatment (12)
- Alendronate drug treatment (60)

BRAIN CANCER

- Adenovirus-mediated introduction of tumor suppressor genes (9)
- Celecoxib and its analog, DMC downregulate survivin expression (49)
- Suicide gene-transducing replication-competent foamy virus vector therapy (24)
- Identification of CuZuSOD tumor suppressor gene (72)
- Antineoplastic effects of hydralazine and valproic acid drug therapy (8)
- Iodine-125 seed irradiation (62) Squamous Cell Cancer
- Modulation of radiation response (28)

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