

Development of chemokine-expressing retrovirus vector system in malignant gliomas

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1996 Fiscal Year Final Research Report Summary

Development of chemokine-expressing retrovirus vector system in malignant gliomas

Research Project

Project/Area Number

07557359

Research Category

Grant-in-Aid for Scientific Research (B)

Allocation Type

Single-year Grants

Section

試験

Research Field

Cerebral neurosurgery

Research Institution

KANAZAWA UNIVERSITY

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1995 – 1996

Keywords

chemokine / MIP-1alpha / MCAF / retrovirus vector / adenovirus vector / glioma

Research Abstract

The C-C chemokines including such molecules as MIP-1alpha (macrophage inflammatory protein-1 alpha) and MCAF (monocyte chemotactic and activity factor) exhibit chemoattractant potential for monocytes and T lymphocytes. We have developed retrovirus and adenovirus vector system which allow expression of the C-C chemokines to evaluate the effect of localized secretion of the chemokines on host anti-tumor response in rat given subcutaneous inoculation of 9L gliosarcoma cells followed by virus injection in vivo. The production of MIP-1alpha by infected adenovirus did not influence the growth rate in vitro, but suppressed tumor growth when the virus is injected into 9L flank tumor of F344 rats. Histological examination of the site of injection of 9L injected with MIP-1alpha expressing adenovirus vector showed predominantly T cell infiltration. These results indicated that chemokines have potent anti-tumor activities when released at the tumor site. Our studies highlight the potential usefulness of localized chemokine secretion in inducing potent antitumor host responses.

Research Products (19 results)

All Other

All Publications (19 results)

- [Publications] Yamashita J · Koyama T他: "Occult intrasacral meningocele associated with spina bifida : A case report" Surg Neurol. 46. 147-149 (1996) ▼

- [Publications] Fueki T, Sugiura S, Yamaguchi K: "Open strands adjacent to iterons promote the binding of the replication initiation protein (Rep) of pSC101 to the unit sequence of the iterons in vitro" Biochemica et Biophysica Acta,. 1305. 181-188 (1996) ▼

- [Publications] Miyagawa T, Amanuma H,他: "Specification of posterior midbrain region in zebrafish neuroepithelium" Gene to Cells. 1. 369-377 (1996) ▼

- [Publications] Ohishi K, Kabaya H,他: "Induction of bovine leukemia virus Env-specific Th-1 type immunity in ice by vaccination with short synthesized peptide-liposome" Vaccine. 12. 1143-1148 (1996) ▼

- [Publications] Kabeya H, Ohashi K,他: "An effective peptide vaccine to eliminate bovine leukemia virus (BLV)-infected cells in carrier sheep" Vaccine. 12. 1118-1122 (1996) ▼

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- [Publications] 山嶋 哲盛、山下 純宏.他: "髄膜腫 最新内科学大系72:能脊髄の腫瘍、外傷、奇形、脊髄異常II" 26-36 (1996) ▼

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- [Publications] Okada T,Imae S,Igarashi S,Koyama T,Yamashita J: "Occult Intrasacral meningocele associated with spina bifida : A case report" Surg Neurol. 46. 147-149 (1996) ▼

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